

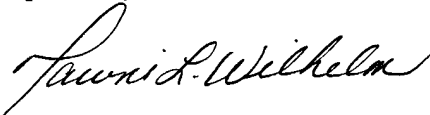
REMARKS

The application has been amended to replace the Sequence Listing with the attached Substitute Sequence Listing. Submitted herewith is the Substitute Sequence Listing (Appendix A) and a marked-up version of the Substitute Sequence Listing with markings to show changes made (Appendix B). It is respectfully submitted that no new matter has been added by the amendment. Modifications have been made in response to the Notice to Comply. Such modifications include a change in the filing date from January 7, 2002 to September 9, 2002 to reflect the date on which the Sequence Listing was submitted. Further changes include a change in the spacing of the nucleotides and nucleotide numeric indicator of SEQ ID NO:5, a change in the "MISC_FEATURE" field of SEQ ID NO:41 to indicate that the 'Xaa' is at only position (186) and a change in the internal docket number to read "2183-5226US" rather than "2183-52226US" to correct an inadvertent error.

It is noted that the change in the filing date was made in response to a request in the Notice to Comply to reflect the date on which the Sequence Listing was submitted. However, the filing date of the application is January 7, 2002.

If any questions remain after consideration of the instant amendments, the Office is kindly requested to contact applicants' attorney at the address or telephone number given herein.

Respectfully submitted,



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Date: October 16, 2002

ACT/TLW/

Enclosures: Appendices A and B

APPENDIX B
MARKED-UP VERSION OF SUBSTITUTE SEQUENCE LISTING
WITH MARKINGS TO SHOW CHANGES MADE
(Application Serial No. 10/040,949)

APPENDIX B **VERSION WITH MARKINGS TO SHOW CHANGES MADE**

SEQUENCE LISTING

<110> Introgene BV
 Havenga, Menzo
 Vogels, Ronald

<120> Infection with chimaeric adenoviruses of cells negative for the
 adenovirus serotype 5 Cocksacki adenovirus receptor (CAR)

<130> 2183-~~52226US~~5226US

<140> 10/040,949

<141> ~~2002-07-07~~2002-09-09

<150> W001/04334

<151> 2000-07-07

<150> EP 99202234.3

<151> 1999-07-08

<150> US 60/142,557

<151> 2000-07-07

<160> 58

<170> PatentIn version 3.1

<210> 1

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligo linker

<220>

<221> misc_feature

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<223> linker contains a PacI restriction site at positions 8-15

<400> 1

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23

<210> 2

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligonucleotide

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<222> (1)..(19)
<223> oligonucleotide contains a PacI restriction site at positions 8-15

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<210> 3
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
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<223> oligonucleotide contains a PacI restriction site at positions 9-16

<400> 3
aattgcggtt aattaagac 19

<210> 4
<211> 47
<212> DNA
<213> Artificial Sequence

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<220>
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<222> (1)..(47)
<223> primer LTR-1

<400> 4
ctgtacgtac cagtgcactg gcctaggcat ggaaaaatac ataactg 47

<210> 5
<211> 64
<212> DNA
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<220>

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 <222> (1)..(64)
 <223> primer LRT-2

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 gcggatcctt cgaaccatgg taagcttggt accgctagcg ttaaccgggc gactcagtca 60
~~gactcagtea~~ 60
 atcg 64

<210> 6
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 <223> primer HSA1

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<210> 7
 <211> 50
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<220>
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 <223> primer HSA2

<400> 7
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<210> 8
 <211> 21
 <212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: primer

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<222> (1)..(21)

<223> primer 1

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21

<210> 9

<211> 33

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: primer

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<223> primer 2

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33

<210> 10

<211> 36

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: primer

<220>

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<400> 10

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36

<210> 11

<211> 19

<212> DNA

<213> Artificial Sequence

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<223> primer 4

<400> 11
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19

<210> 12
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<212> DNA
<213> Artificial Sequence

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<222> (1)..(42)
<223> primer NY-up

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42

<210> 13
<211> 19
<212> DNA
<213> Artificial Sequence

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<222> (1)..(19)
<223> primer NY-down

<400> 13
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19

<210> 14
<211> 10
<212> DNA
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<220>
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 <400> 14
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<210> 15
 <211> 32
 <212> DNA
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 <220>
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 <222> (1)..(32)
 <223> LacZ primer 1

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 ggggtggcca gggtagctct aggcttttgc aa 32

<210> 16
 <211> 29
 <212> DNA
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 <222> (1)..(29)
 <223> LacZ primer 2

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<210> 17
 <211> 35
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<223> contains a NdeI restriction site at positions 11-16

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35

<210> 18
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<222> (1)..(27)
<223> tail oligonucleotide

<220>
<221> misc_feature
<222> (1)..(27)
<223> tail oligonucleotide

<220>
<221> misc_feature
<222> (11)..(16)
<223> contains a NdeI restriction site at positions 11-16

<400> 18
cccgctctacc catatggcta cgcgcg

27

<210> 19
<211> 27
<212> DNA
<213> Artificial Sequence

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<221> misc_feature
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<223> tail oligonucleotide

<220>
<221> misc_feature
<222> (11)..(16)
<223> contains a NdeI restriction site at positions 11-16

<220>
<221> misc_feature
<222> (3)..(3)
<223> 'k' at position 3 indicates a nucleotide that may be either g or
t

<220>
<221> misc_feature
<222> (6)..(6)
<223> 's' at position 6 indicates a nucleotide that may be either g or
c

<400> 19
cckgtstacc catatgaaga tgaaagc

27

<210> 20
<211> 31
<212> DNA
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<222> (1)..(31)
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<220>
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<222> (23)..(23)
<223> 'y' at position 23 indicates a nucleotide that may be either t or
c

<220>
<221> misc_feature
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<400> 20
cccgtctacc catatgacac ctyctcaact c

31

<210> 21
<211> 36
<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence: oligonucleotide

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<222> (1)..(36)
<223> tail oligonucleotide

<220>
<221> misc_feature
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<400> 21
cccgtttacc catatgaccc atttgacaca tcagac

36

<210> 22
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligonucleotide

<220>
<221> misc_feature
<222> (1)..(30)
<223> knob oligonucleotide

<220>
<221> misc_feature
<222> (4)..(9)
<223> contains a NsiI restriction site at positions 4-9

<400> 22
ccgatgcatt tattggtggg ctatatagga

30

<210> 23
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<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence:  oligonucleotide

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<222> (1)..(30)
<223> knob oligonucleotide

<220>
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<222> (11)..(11)
<223> 'y' at position 11 indicates a nucleotide that may be either t or
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<220>
<221> misc_feature
<222> (22)..(22)
<223> 'r' at position 22 indicates a nucleotide that may be either g or
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<220>
<221> misc_feature
<222> (4)..(9)
<223> contains a NsiI restriction site at positions 4-9

<400> 23
ccgatgcatt yattcttggg cratatagga

<210> 24
<211> 36
<212> DNA
<213> Artificial Sequence

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<220>
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<222> (28)..(28)
<223> 'w' at position 28 indicates a nucleotide that may be either a or
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<220>
<221> misc_feature

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<222> (4)..(9)
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36

<210> 25
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<212> DNA
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<210> 26
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<221> misc_feature
<222> (4)..(9)
<223> contains a NsiI restriction site at positions 4-9

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gccatgcatt tattgttctg ttacataaga

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<212> DNA
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<223> Description of Artificial Sequence: oligonucleotide

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<222> (4)..(11)
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<400> 28
ccgtaatta agcccttatt gttctgttac ataagaa

37

<210> 29
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<223> Description of Artificial Sequence: oligonucleotide

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<220>
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<222> (23)..(23)
<223> 'w' at position 23 indicates a nucleotide that may be either a or
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ccgatgcatt cagtcacgtt ctwtaatata                                     30

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<211> 377
<212> PRT
<213> adenoviridae

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<223> Serotype 8 fiber protein

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Ser Cys Ser Cys Pro Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met
1           5           10           15

Lys Arg Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro Tyr
          20           25           30

Gly Tyr Ala Arg Asn Gln Asn Ile Pro Phe Leu Thr Pro Pro Phe Val
35           40           45

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Ser Ser Asn Gly Phe Gln Asn Phe Pro Pro Gly Val Leu Ser Leu Lys
 50 55 60

Leu Ala Asp Pro Ile Thr Ile Asn Asn Gln Asn Val Ser Leu Lys Val
 65 70 75 80

Gly Gly Gly Leu Thr Leu Gln Glu Glu Thr Gly Lys Leu Thr Val Asn
 85 90 95

Thr Glu Pro Pro Leu His Leu Thr Asn Asn Lys Leu Gly Ile Ala Leu
 100 105 110

Asp Ala Pro Phe Asp Val Ile Asp Asn Lys Leu Thr Leu Leu Ala Gly
 115 120 125

His Gly Leu Ser Ile Ile Thr Lys Glu Thr Ser Thr Leu Pro Gly Leu
 130 135 140

Val Asn Thr Leu Val Val Leu Thr Gly Lys Gly Ile Gly Thr Asp Leu
 145 150 155 160

Ser Asn Asn Gly Gly Asn Ile Cys Val Arg Val Gly Glu Gly Gly Gly
 165 170 175

Leu Ser Phe Asn Asp Asn Gly Asp Leu Val Ala Phe Asn Lys Lys Glu
 180 185 190

Asp Lys Arg Thr Leu Trp Thr Thr Pro Asp Thr Ser Pro Asn Cys Arg
 195 200 205

Ile Asp Gln Asp Lys Asp Ser Lys Leu Thr Leu Val Leu Thr Lys Cys
 210 215 220

Gly Ser Gln Ile Leu Ala Asn Val Ser Leu Ile Val Val Ala Gly Arg
 225 230 235 240

Tyr Lys Ile Ile Asn Asn Asn Thr Asn Pro Ala Leu Lys Gly Phe Thr
 245 250 255

Ile Lys Leu Leu Phe Asp Lys Asn Gly Val Leu Met Glu Ser Ser Asn

260 265 270
 Leu Gly Lys Ser Tyr Trp Asn Phe Arg Asn Gln Asn Ser Ile Met Ser
 275 280 285
 Thr Ala Tyr Glu Lys Ala Ile Gly Phe Met Pro Asn Leu Val Ala Tyr
 290 295 300
 Pro Lys Pro Thr Thr Gly Ser Lys Lys Tyr Ala Arg Asp Ile Val Tyr
 305 310 315 320
 Gly Asn Ile Tyr Leu Gly Gly Lys Pro His Gln Pro Val Thr Ile Lys
 325 330 335
 Thr Thr Phe Asn Gln Glu Thr Gly Cys Glu Tyr Ser Ile Thr Phe Asp
 340 345 350
 Phe Ser Trp Ala Lys Thr Tyr Val Asn Val Glu Phe Glu Thr Thr Ser
 355 360 365
 Phe Thr Phe Ser Tyr Ile Ala Gln Glu
 370 375

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 <211> 377
 <212> PRT
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Ser Cys Ser Cys Pro Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met
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 20 25 30

Gly Tyr Ala Arg Asn Gln Asn Ile Pro Phe Leu Thr Pro Pro Phe Val
 35 40 45

Ser Ser Asp Gly Phe Gln Asn Phe Pro Pro Gly Val Leu Ser Leu Lys
50 55 60

Leu Ala Asp Pro Ile Ala Ile Val Asn Gly Asn Val Ser Leu Lys Val
65 70 75 80

Gly Gly Gly Leu Thr Leu Gln Asp Gly Thr Gly Lys Leu Thr Val Asn
85 90 95

Ala Asp Pro Pro Leu Gln Leu Thr Asn Asn Lys Leu Gly Ile Ala Leu
100 105 110

Asp Ala Pro Phe Asp Val Ile Asp Asn Lys Leu Thr Leu Leu Ala Gly
115 120 125

His Gly Leu Ser Ile Ile Thr Lys Glu Thr Ser Thr Leu Pro Gly Leu
130 135 140

Ile Asn Thr Leu Val Val Leu Thr Gly Lys Gly Ile Gly Thr Glu Ser
145 150 155 160

Thr Asp Asn Gly Gly Ser Val Cys Val Arg Val Gly Glu Gly Gly Gly
165 170 175

Leu Ser Phe Asn Asn Asp Gly Asp Leu Val Ala Phe Asn Lys Lys Glu
180 185 190

Asp Lys Arg Thr Leu Trp Thr Thr Pro Asp Thr Ser Pro Asn Cys Lys
195 200 205

Ile Asp Gln Asp Lys Asp Ser Lys Leu Thr Leu Val Leu Thr Lys Cys
210 215 220

Gly Ser Gln Ile Leu Ala Asn Val Ser Leu Ile Val Val Ala Gly Lys
225 230 235 240

Tyr Lys Ile Ile Asn Asn Asn Thr Gln Pro Ala Leu Lys Gly Phe Thr
245 250 255

Ile Lys Leu Leu Phe Asp Glu Asn Gly Val Leu Met Glu Ser Ser Asn
260 265 270

Leu Gly Lys Ser Tyr Trp Asn Phe Arg Asn Glu Asn Ser Ile Met Ser
 275 280 285

Thr Ala Tyr Glu Lys Ala Ile Gly Phe Met Pro Asn Leu Val Ala Tyr
 290 295 300

Pro Lys Pro Thr Ala Gly Ser Lys Lys Tyr Ala Arg Asp Ile Val Tyr
 305 310 315 320

Gly Asn Ile Tyr Leu Gly Gly Lys Pro Asp Gln Pro Val Thr Ile Lys
 325 330 335

Thr Thr Phe Asn Gln Glu Thr Gly Cys Glu Tyr Ser Ile Thr Phe Asp
 340 345 350

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Phe Thr Phe Ser Tyr Ile Ala Gln Glu
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<210> 32

<211> 391

<212> PRT

<213> adenoviridae

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<221> MISC_FEATURE

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<222> (1)..(391)

<223> Serotype 13 fiber protein

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<222> (23)..(23)

<223> 'Xaa' at position 23 indicates an unidentified amino acid due to unidentified nucleotide(s)

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 <223> 'Xaa' at position 49 indicates an unidentified amino acid due to unidentified nucleotide(s)

<220>
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<400> 32

Xaa Xaa Xaa Xaa Xaa Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met
 1 5 10 15

Lys Arg Ala Arg Ser Ser Xaa Asp Thr Phe Asn Pro Val Tyr Pro Tyr
 20 25 30

Gly Tyr Ala Arg Asn Gln Asn Ile Xaa Phe Xaa Thr Pro Pro Phe Val
 35 40 45

Xaa Ser Asp Gly Phe Lys Asn Phe Pro Pro Gly Val Leu Ser Leu Lys
 50 55 60

Leu Ala Asp Pro Ile Thr Ile Ala Asn Gly Asp Val Ser Leu Lys Val
 65 70 75 80

Gly Gly Gly Leu Thr Leu Gln Glu Gly Ser Leu Thr Val Asp Pro Lys
 85 90 95

Ala Pro Leu Gln Leu Ala Asn Asp Lys Lys Leu Glu Leu Val Tyr Asp

	100		105		110										
Asp	Pro	Phe	Glu	Val	Ser	Thr	Asn	Lys	Leu	Ser	Leu	Lys	Val	Gly	His
	115						120					125			
Gly	Leu	Lys	Val	Leu	Asp	Asp	Lys	Ser	Ala	Gly	Gly	Leu	Lys	Asp	Leu
	130					135					140				
Ile	Gly	Lys	Leu	Val	Val	Leu	Thr	Gly	Lys	Gly	Ile	Gly	Ile	Glu	Asn
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Leu	Gln	Asn	Asp	Asp	Gly	Ser	Ser	Arg	Gly	Val	Gly	Ile	Asn	Val	Arg
				165					170					175	
Leu	Gly	Thr	Asp	Gly	Gly	Leu	Ser	Phe	Asp	Arg	Lys	Gly	Glu	Leu	Val
			180					185					190		
Ala	Trp	Asn	Arg	Lys	Asp	Asp	Arg	Arg	Thr	Leu	Trp	Thr	Thr	Pro	Asp
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Leu	Val	Leu	Thr	Lys	Cys	Gly	Ser	Gln	Ile	Leu	Ala	Thr	Val	Ser	Ile
225					230					235					240
Ile	Val	Leu	Lys	Gly	Lys	Tyr	Glu	Phe	Val	Lys	Lys	Glu	Thr	Glu	Pro
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Lys	Ser	Phe	Asp	Val	Lys	Leu	Leu	Phe	Asp	Ser	Lys	Gly	Val	Leu	Leu
			260					265					270		
Pro	Thr	Ser	Asn	Leu	Ser	Lys	Glu	Tyr	Trp	Asn	Tyr	Arg	Ser	Tyr	Asp
		275					280					285			
Asn	Asn	Ile	Gly	Thr	Pro	Tyr	Glu	Asn	Ala	Val	Pro	Phe	Met	Pro	Asn
	290					295					300				
Leu	Lys	Ala	Tyr	Pro	Lys	Pro	Thr	Lys	Thr	Ala	Ser	Asp	Lys	Ala	Glu
305					310					315					320

Asn Lys Ile Ser Ser Ala Lys Asn Lys Ile Val Ser Asn Phe Tyr Phe
325 330 335

Gly Gly Gln Ala Tyr Gln Pro Gly Thr Ile Ile Ile Lys Phe Asn Glu
340 345 350

Glu Ile Asp Glu Thr Cys Ala Tyr Ser Ile Thr Phe Asn Phe Gly Trp
355 360 365

Gly Lys Val Tyr Asp Asn Pro Phe Pro Phe Asp Thr Thr Ser Phe Thr
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Xaa Ser Tyr Ile Ala Gln Glu
385 390

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His Pro Phe Ile Asn Pro Gly Phe Ile Ser Pro Asn Gly Phe Thr Gln
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Ser Pro Asp Gly Val Leu Thr Leu Lys Cys Leu Thr Pro Leu Thr Thr
20 25 30

Thr Gly Gly Ser Leu Gln Leu Lys Val Gly Gly Gly Leu Thr Val Asp
35 40 45

Asp Thr Asp Gly Thr Leu Gln Glu Asn Ile Gly Ala Thr Thr Pro Leu
50 55 60

Val Lys Thr Gly His Ser Ile Gly Leu Ser Leu Gly Ala Gly Leu Gly
65 70 75 80

Thr Asp Glu Asn Lys Leu Cys Thr Lys Leu Gly Glu Gly Leu Thr Phe
85 90 95

Asn Ser Asn Asn Ile Cys Ile Asp Asp Asn Ile Asn Thr Leu Trp Thr
 100 105 110

Gly Val Asn Pro Thr Glu Ala Asn Cys Gln Met Met Asp Ser Ser Glu
 115 120 125

Ser Asn Asp Cys Lys Leu Ile Leu Thr Leu Val Lys Thr Gly Ala Leu
 130 135 140

Val Thr Ala Phe Val Tyr Val Ile Gly Val Ser Asn Asn Phe Asn Met
 145 150 155 160

Leu Thr Thr Tyr Arg Asn Ile Asn Phe Thr Ala Glu Leu Phe Phe Asp
 165 170 175

Ser Ala Gly Asn Leu Leu Thr Ser Leu Ser Ser Leu Lys Thr Pro Leu
 180 185 190

Asn His Lys Ser Gly Gln Thr Trp Leu Leu Val Pro Leu Leu Met Leu
 195 200 205

Lys Val Ser Cys Pro Ala Gln Leu Leu Ile Leu Ser Ile Ile Ile Leu
 210 215 220

Glu Lys Asn Lys Thr Thr Phe Thr Glu Leu Val Thr Thr Gln Leu Val
 225 230 235 240

Ile Thr Leu Leu Phe Pro Leu Thr Ile Ser Val Met Leu Asn Gln Arg
 245 250 255

Ala Ile Arg Ala Asp Thr Ser Tyr Cys Ile Arg Ile Thr Trp Ser Trp
 260 265 270

Asn Thr Gly Asp Ala Pro Glu Gly Gln Thr Ser Ala Thr Thr Leu Val
 275 280 285

Thr Ser
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<211> 345
 <212> PRT
 <213> adenoviridae

<220>
 <221> VARIANT
 <222> (1)..(345)
 <223> Serotype 20 fiber protein

<400> 34

Ile Gln Asn Ile Pro Phe Leu Thr Pro Pro Phe Val Ser Ser Asp Gly
 1 5 10 15

Leu Gln Asn Phe Pro Pro Gly Val Leu Ser Leu Lys Leu Ala Asp Pro
 20 25 30

Ile Ala Ile Val Asn Gly Asn Val Ser Leu Lys Val Gly Gly Gly Ile
 35 40 45

Thr Val Glu Gln Asp Ser Gly Gln Leu Ile Ala Asn Pro Lys Ala Pro
 50 55 60

Leu Gln Val Ala Asn Asp Lys Leu Glu Leu Ser Tyr Ala Tyr Pro Phe
 65 70 75 80

Glu Thr Ser Ala Asn Lys Leu Ser Leu Lys Val Gly Gln Gly Leu Lys
 85 90 95

Val Leu Asp Glu Lys Asp Ser Gly Gly Leu Gln Asn Leu Leu Gly Lys
 100 105 110

Leu Val Val Leu Thr Gly Lys Gly Ile Gly Val Glu Glu Leu Lys Asn
 115 120 125

Pro Asp Asn Thr Asn Arg Gly Val Gly Ile Asn Val Arg Leu Gly Lys
 130 135 140

Asp Gly Gly Leu Ser Phe Asn Lys Asn Gly Glu Leu Val Ala Trp Asn
 145 150 155 160

Lys His Asn Asp Thr Gly Thr Leu Trp Thr Thr Pro Asp Pro Ser Pro
 165 170 175

Asn Cys Lys Ile Glu Glu Val Lys Asp Ser Lys Leu Thr Leu Val Leu
180 185 190

Thr Lys Cys Gly Ser Gln Ile Leu Ala Thr Met Ala Phe Gln Val Val
195 200 205

Lys Gly Thr Tyr Glu Asn Ile Ser Lys Asn Thr Ala Lys Asn Ser Phe
210 215 220

Ser Ile Lys Leu Leu Phe Asp Asp Asn Gly Lys Leu Leu Glu Gly Ser
225 230 235 240

Ser Leu Asp Lys Asp Tyr Trp Asn Phe Arg Ser Asp Asp Ser Ile Ile
245 250 255

Pro Asn Gln Tyr Asp Asn Ala Val Pro Phe Met Pro Asn Leu Lys Ala
260 265 270

Tyr Pro Lys Pro Ser Thr Val Leu Pro Ser Thr Asp Lys Asn Ser Asn
275 280 285

Gly Lys Asn Thr Ile Val Ser Asn Leu Tyr Leu Glu Gly Lys Ala Tyr
290 295 300

Gln Pro Val Ala Val Thr Ile Thr Phe Asn Lys Glu Ile Gly Cys Thr
305 310 315 320

Tyr Ser Ile Thr Phe Asp Phe Gly Trp Ala Lys Thr Tyr Asp Val Pro
325 330 335

Ile Pro Phe Asp Ser Ser Ser Phe Thr
340 345

<210> 35
<211> 346
<212> PRT
<213> adenoviridae

<220>
<221> VARIANT
<222> (1)..(346)
<223> Serotype 23 fiber protein

<400> 35

Gln Asn Ile Pro Phe Leu Thr Pro Pro Phe Val Ser Ser Asp Gly Phe
1 5 10 15

Gln Asn Phe Pro Pro Gly Val Leu Ser Leu Lys Leu Ala Asp Pro Ile
20 25 30

Ala Ile Thr Asn Gly Asp Val Ser Leu Lys Val Gly Gly Gly Leu Thr
35 40 45

Val Glu Gln Asp Ser Gly Asn Leu Lys Val Asn Thr Lys Ala Pro Leu
50 55 60

Gln Val Ala Ala Asp Lys Gln Leu Glu Ile Ala Leu Ala Asp Pro Phe
65 70 75 80

Glu Val Ser Lys Gly Arg Leu Gly Ile Lys Ala Gly His Gly Leu Lys
85 90 95

Val Ile Asp Asn Ser Ile Ser Gly Leu Glu Gly Leu Val Gly Thr Leu
100 105 110

Val Val Leu Thr Gly His Gly Ile Gly Thr Glu Asn Leu Leu Asn Asn
115 120 125

Asp Gly Ser Ser Arg Gly Val Gly Ile Asn Val Arg Leu Gly Lys Asp
130 135 140

Gly Gly Leu Ser Phe Asp Lys Lys Gly Asp Leu Val Ala Trp Asn Lys
145 150 155 160

Lys Tyr Asp Thr Arg Thr Leu Trp Thr Thr Pro Asp Pro Ser Pro Asn
165 170 175

Cys Lys Val Ile Glu Ala Lys Asp Ser Lys Leu Thr Leu Val Leu Thr
180 185 190

Lys Cys Gly Ser Gln Ile Leu Ala Asn Met Ser Leu Leu Ile Leu Lys
195 200 205

Gly Thr Tyr Glu Tyr Ile Ser Asn Ala Ile Ala Asn Lys Ser Phe Thr
 210 215 220

Ile Lys Leu Leu Phe Asn Asp Lys Gly Val Leu Met Asp Gly Ser Ser
 225 230 235 240

Leu Asp Lys Asp Tyr Trp Asn Tyr Lys Ser Asp Asp Ser Val Met Ser
 245 250 255

Lys Ala Tyr Glu Asn Ala Val Pro Phe Met Pro Asn Leu Lys Ala Tyr
 260 265 270

Pro Asn Pro Thr Thr Ser Thr Thr Asn Pro Ser Thr Asp Lys Lys Ser
 275 280 285

Asn Gly Lys Asn Ala Ile Val Ser Asn Val Tyr Leu Glu Gly Arg Ala
 290 295 300

Tyr Gln Pro Val Ala Ile Thr Ile Thr Phe Asn Lys Glu Thr Gly Cys
 305 310 315 320

Thr Tyr Ser Met Thr Phe Asp Phe Gly Trp Ser Lys Val Tyr Asn Asp
 325 330 335

Pro Ile Pro Phe Asp Thr Ser Ser Leu Thr
 340 345

<210> 36
 <211> 390
 <212> PRT
 <213> adenoviridae

<220>
 <221> VARIANT
 <222> (1)..(390)
 <223> Serotype 24 fiber protein

<400> 36

Ser Cys Ser Cys Pro Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met
 1 5 10 15

Lys Arg Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro Tyr
 20 25 30

Gly Tyr Ala Arg Asn Gln Asn Ile Pro Phe Leu Thr Pro Pro Phe Val
 35 40 45

Ser Ser Asp Gly Phe Gln Asn Phe Pro Pro Gly Val Leu Ser Leu Lys
 50 55 60

Leu Ala Asp Pro Ile Ala Ile Thr Asn Gly Asp Val Ser Leu Lys Val
 65 70 75 80

Gly Gly Gly Leu Thr Val Glu Lys Asp Ser Gly Asn Leu Lys Val Asn
 85 90 95

Pro Lys Ala Pro Leu Gln Val Thr Thr Asp Lys Gln Leu Glu Ile Ala
 100 105 110

Leu Ala Tyr Pro Phe Glu Val Ser Asn Gly Lys Leu Gly Ile Lys Ala
 115 120 125

Gly His Gly Leu Lys Val Ile Asp Lys Ile Ala Gly Leu Glu Gly Leu
 130 135 140

Ala Gly Thr Leu Val Val Leu Thr Gly Lys Gly Ile Gly Thr Glu Asn
 145 150 155 160

Leu Glu Asn Ser Asp Gly Ser Ser Arg Gly Val Gly Ile Asn Val Arg
 165 170 175

Leu Ala Lys Asp Gly Gly Leu Ser Phe Asp Lys Lys Gly Asp Leu Val
 180 185 190

Ala Trp Asn Lys His Asp Asp Arg Arg Thr Leu Trp Thr Thr Pro Asp
 195 200 205

Pro Ser Pro Asn Cys Thr Ile Asp Gln Glu Arg Asp Ser Lys Leu Thr
 210 215 220

Leu Val Leu Thr Lys Cys Gly Ser Gln Ile Leu Ala Asn Val Ser Leu
 225 230 235 240

Leu Val Val Lys Gly Lys Phe Ser Asn Ile Asn Asn Asn Thr Asn Pro

245	250	255
Thr Asp Lys Lys Ile Thr Val Lys Leu Leu Phe Asn Glu Lys Gly Val		
260	265	270
Leu Met Asp Ser Ser Thr Leu Lys Lys Glu Tyr Trp Asn Tyr Arg Asn		
275	280	285
Asp Asn Ser Thr Val Ser Gln Ala Tyr Asp Asn Ala Val Pro Phe Met		
290	295	300
Pro Asn Ile Lys Ala Tyr Pro Lys Pro Thr Thr Asp Thr Ser Ala Lys		
305	310	315
Pro Glu Asp Lys Lys Ser Ala Ala Lys Arg Tyr Ile Val Ser Asn Val		
325	330	335
Tyr Ile Gly Gly Leu Pro Asp Lys Thr Val Val Ile Thr Ile Lys Phe		
340	345	350
Asn Ala Glu Thr Glu Cys Ala Tyr Ser Ile Thr Phe Glu Phe Thr Trp		
355	360	365
Ala Lys Thr Phe Glu Asp Val Gln Phe Asp Ser Ser Ser Phe Thr Phe		
370	375	380
Ser Tyr Ile Ala Gln Glu		
385	390	

<210> 37
 <211> 375
 <212> PRT
 <213> adenoviridae

<220>
 <221> VARIANT
 <222> (1)..(375)
 <223> Serotype 25 fiber protein

<220>
 <221> MISC_FEATURE
 <222> (141)..(141)
 <223> 'Xaa' at position 41 indicates an unidentified amino acid due to unidentified nucleotide(s)

<400> 37

Ser Cys Ser Cys Pro Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met
1 5 10 15

Lys Arg Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro Tyr
20 25 30

Gly Tyr Ala Arg Asn Gln Asn Ile Pro Phe Leu Thr Pro Pro Phe Val
35 40 45

Ser Ser Asp Gly Phe Gln Asn Phe Pro Pro Gly Val Leu Ser Leu Lys
50 55 60

Leu Ala Asp Pro Ile Thr Ile Ser Asn Gly Asp Val Ser Leu Lys Val
65 70 75 80

Gly Gly Gly Leu Thr Val Glu Gln Asp Ser Gly Asn Leu Ser Val Asn
85 90 95

Pro Lys Ala Pro Leu Gln Val Gly Thr Asp Lys Lys Leu Glu Leu Ala
100 105 110

Leu Ala Pro Pro Phe Asn Val Lys Asp Asn Lys Leu Asp Leu Leu Val
115 120 125

Gly Asp Gly Leu Lys Val Ile Asp Lys Ser Ile Ser Xaa Leu Pro Gly
130 135 140

Leu Leu Asn Tyr Leu Val Val Leu Thr Gly Lys Gly Ile Gly Asn Glu
145 150 155 160

Glu Leu Lys Asn Asp Asp Gly Ser Asn Lys Gly Val Gly Leu Cys Val
165 170 175

Arg Ile Gly Glu Gly Gly Gly Leu Thr Phe Asp Asp Lys Gly Tyr Leu
180 185 190

Val Ala Trp Asn Lys Lys His Asp Ile Arg Thr Leu Trp Thr Thr Leu
195 200 205

Asp Pro Ser Pro Asn Cys Arg Ile Asp Val Asp Lys Asp Ser Lys Leu
 210 215 220

Thr Leu Val Leu Thr Lys Cys Gly Ser Gln Ile Leu Ala Asn Val Ser
 225 230 235 240

Leu Leu Val Val Lys Gly Arg Phe Gln Asn Leu Asn Tyr Lys Thr Asn
 245 250 255

Pro Asn Leu Pro Lys Thr Phe Thr Ile Lys Leu Leu Phe Asp Glu Asn
 260 265 270

Gly Ile Leu Lys Asp Ser Ser Asn Leu Asp Lys Asn Tyr Trp Asn Tyr
 275 280 285

Arg Asn Gly Asn Ser Ile Leu Ala Glu Gln Tyr Lys Asn Ala Val Gly
 290 295 300

Phe Met Pro Asn Leu Ala Ala Tyr Pro Lys Ser Thr Thr Thr Gln Ser
 305 310 315 320

Lys Leu Tyr Ala Arg Asn Thr Ile Phe Gly Asn Ile Tyr Leu Asp Ser
 325 330 335

Gln Ala Tyr Asn Pro Val Val Ile Lys Ile Thr Phe Asn Gln Glu Ala
 340 345 350

Asp Ser Ala Tyr Ser Ile Thr Leu Asn Tyr Ser Trp Gly Lys Asp Tyr
 355 360 365

Glu Asn Ile Pro Phe Asp Ser
 370 375

<210> 38
 <211> 335
 <212> PRT
 <213> adenoviridae

<220>
 <221> VARIANT
 <222> (1)..(335)
 <223> Serotype 27 fiber protein

<400> 38

Ile Pro Phe Leu Thr Pro Pro Phe Val Ser Ser Asp Gly Phe Lys Asn
1 5 10 15

Phe Pro Pro Gly Val Leu Ser Leu Lys Leu Ala Asp Pro Ile Thr Ile
20 25 30

Thr Asn Gly Asp Val Ser Leu Lys Val Gly Gly Gly Leu Val Val Glu
35 40 45

Lys Glu Ser Gly Lys Leu Ser Val Asp Pro Lys Thr Pro Leu Gln Val
50 55 60

Ala Ser Asp Asn Lys Leu Glu Leu Ser Tyr Asn Ala Pro Phe Lys Val
65 70 75 80

Glu Asn Asp Lys Leu Ser Leu Asp Val Gly His Gly Leu Lys Val Ile
85 90 95

Gly Asn Glu Val Ser Ser Leu Pro Gly Leu Ile Asn Lys Leu Val Val
100 105 110

Leu Thr Gly Lys Gly Ile Gly Thr Glu Glu Leu Lys Glu Gln Asn Ser
115 120 125

Asp Lys Ile Ile Gly Val Gly Ile Asn Val Arg Ala Arg Gly Gly Leu
130 135 140

Ser Phe Asp Asn Asp Gly Tyr Leu Val Ala Trp Asn Pro Lys Tyr Asp
145 150 155 160

Thr Arg Thr Leu Trp Thr Thr Pro Asp Thr Ser Pro Asn Cys Lys Met
165 170 175

Leu Thr Lys Lys Asp Ser Lys Leu Thr Leu Thr Leu Thr Lys Cys Gly
180 185 190

Ser Gln Ile Leu Gly Asn Val Ser Leu Leu Ala Val Ser Gly Lys Tyr
195 200 205

Leu Asn Met Thr Lys Asp Glu Thr Gly Val Lys Ile Ile Leu Leu Phe
 210 215 220

Asp Arg Asn Gly Val Leu Met Gln Glu Ser Ser Leu Asp Lys Glu Tyr
 225 230 235 240

Trp Asn Tyr Arg Asn Asp Asn Asn Val Ile Gly Thr Pro Tyr Glu Asn
 245 250 255

Ala Val Gly Phe Met Pro Asn Leu Val Ala Tyr Pro Lys Pro Thr Ser
 260 265 270

Ala Asp Ala Lys Asn Tyr Ser Arg Ser Lys Ile Ile Ser Asn Val Tyr
 275 280 285

Leu Lys Gly Leu Ile Tyr Gln Pro Val Ile Ile Ile Ala Ser Phe Asn
 290 295 300

Gln Glu Thr Thr Asn Gly Cys Val Tyr Ser Ile Ser Phe Asp Phe Thr
 305 310 315 320

Cys Ser Lys Asp Tyr Thr Gly Gln Gln Phe Asp Val Thr Ser Phe
 325 330 335

<210> 39
 <211> 374
 <212> PRT
 <213> adenoviridae

<220>
 <221> VARIANT
 <222> (1)..(374)
 <223> Serotype 28 fiber protein

<400> 39

Ser Cys Ser Cys Pro Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met
 1 5 10 15

Lys Arg Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro Tyr
 20 25 30

Gly Tyr Ala Arg Asn Gln Asn Ile Pro Phe Leu Thr Pro Pro Phe Val
 35 40 45

Ser Ser Asp Gly Phe Gln Asn Phe Pro Pro Gly Val Leu Ser Leu Lys
50 55 60

Leu Ala Asp Pro Ile Thr Ile Ala Asn Gly Asp Val Ser Leu Lys Leu
65 70 75 80

Gly Gly Gly Leu Thr Val Glu Lys Glu Ser Gly Asn Leu Thr Val Asn
85 90 95

Pro Lys Ala Pro Leu Gln Val Ala Ser Gly Gln Leu Glu Leu Ala Tyr
100 105 110

Tyr Ser Pro Phe Asp Val Lys Asn Asn Met Leu Thr Leu Lys Ala Gly
115 120 125

His Gly Leu Ala Val Val Thr Lys Asp Asn Thr Asp Leu Gln Pro Leu
130 135 140

Met Gly Thr Leu Val Val Leu Thr Gly Lys Gly Ile Gly Thr Gly Thr
145 150 155 160

Ser Ala His Gly Gly Thr Ile Asp Val Arg Ile Gly Lys Asn Gly Ser
165 170 175

Leu Ala Phe Asp Lys Asn Gly Asp Leu Val Ala Trp Asp Lys Glu Asn
180 185 190

Asp Arg Arg Thr Leu Trp Thr Thr Pro Asp Thr Ser Pro Asn Cys Lys
195 200 205

Met Ser Glu Val Lys Asp Ser Lys Leu Thr Leu Ile Leu Thr Lys Cys
210 215 220

Gly Ser Gln Ile Leu Gly Ser Val Ser Leu Leu Ala Val Lys Gly Glu
225 230 235 240

Tyr Gln Asn Met Thr Ala Ser Thr Asn Lys Asn Val Lys Ile Thr Leu
245 250 255

Leu Phe Asp Ala Asn Gly Val Leu Leu Glu Gly Ser Ser Leu Asp Lys

260 265 270
 Glu Tyr Trp Asn Phe Arg Asn Asn Asp Ser Thr Val Ser Gly Lys Tyr
 275 280 285
 Glu Asn Ala Val Pro Phe Met Pro Asn Ile Thr Ala Tyr Lys Pro Val
 290 295 300
 Asn Ser Lys Ser Tyr Ala Arg Ser His Ile Phe Gly Asn Val Tyr Ile
 305 310 315 320
 Asp Ala Lys Pro Tyr Asn Pro Val Val Ile Lys Ile Ser Phe Asn Gln
 325 330 335
 Glu Thr Gln Asn Asn Cys Val Tyr Ser Ile Ser Phe Asp Tyr Thr Cys
 340 345 350
 Ser Lys Glu Tyr Thr Gly Met Gln Phe Asp Val Thr Ser Phe Thr Phe
 355 360 365
 Ser Tyr Ile Ala Gln Glu
 370

<210> 40
 <211> 343
 <212> PRT
 <213> adenoviridae

<220>
 <221> VARIANT
 <222> (1)..(343)
 <223> Serotype 29 fiber protein

<400> 40

Gln Asn Ile Pro Phe Leu Thr Pro Pro Phe Val Ser Ser Asp Gly Phe
 1 5 10 15
 Lys Asn Phe Pro Pro Gly Val Leu Ser Leu Lys Leu Ala Asp Pro Ile
 20 25 30
 Ala Ile Thr Asn Gly Asp Val Ser Leu Lys Val Gly Gly Gly Leu Thr
 35 40 45

Val Glu Gln Asp Ser Gly Asn Leu Ser Val Asn Pro Lys Ala Pro Leu
50 55 60

Gln Val Gly Thr Asp Lys Lys Leu Glu Leu Ala Leu Ala Pro Pro Phe
65 70 75 80

Asp Val Arg Asp Asn Lys Leu Ala Ile Leu Val Gly Asp Gly Leu Lys
85 90 95

Val Ile Asp Arg Ser Ile Ser Asp Leu Pro Gly Leu Leu Asn Tyr Leu
100 105 110

Val Val Leu Thr Gly Lys Gly Ile Gly Asn Glu Glu Leu Lys Asn Asp
115 120 125

Asp Gly Ser Asn Lys Gly Val Gly Leu Cys Val Arg Ile Gly Glu Gly
130 135 140

Gly Gly Leu Thr Phe Asp Asp Lys Gly Tyr Leu Val Ala Trp Asn Asn
145 150 155 160

Lys His Asp Ile Arg Thr Leu Trp Thr Thr Leu Asp Pro Ser Pro Asn
165 170 175

Cys Lys Ile Asp Ile Glu Lys Asp Ser Lys Leu Thr Leu Val Leu Thr
180 185 190

Lys Cys Gly Ser Gln Ile Leu Ala Asn Val Ser Leu Ile Ile Val Asn
195 200 205

Gly Lys Phe Lys Ile Leu Asn Asn Lys Thr Asp Pro Ser Leu Pro Lys
210 215 220

Ser Phe Asn Ile Lys Leu Leu Phe Asp Gln Asn Gly Val Leu Leu Glu
225 230 235 240

Asn Ser Asn Ile Glu Lys Gln Tyr Leu Asn Phe Arg Ser Gly Asp Ser
245 250 255

Ile Leu Pro Glu Pro Tyr Lys Asn Ala Ile Gly Phe Met Pro Asn Leu
260 265 270

Leu Ala Tyr Ala Lys Ala Thr Thr Asp Gln Ser Lys Ile Tyr Ala Arg
 275 280 285

Asn Thr Ile Tyr Gly Asn Ile Tyr Leu Asp Asn Gln Pro Tyr Asn Pro
 290 295 300

Val Val Ile Lys Ile Thr Phe Asn Asn Glu Ala Asp Ser Ala Tyr Ser
 305 310 315 320

Ile Thr Phe Asn Tyr Ser Trp Thr Lys Asp Tyr Asp Asn Ile Pro Phe
 325 330 335

Asp Ser Thr Ser Phe Thr Ser
 340

<210> 41
 <211> 386
 <212> PRT
 <213> adenoviridae

<220>
 <221> VARIANT
 <222> (1)..(386)
 <223> Serotype 30 fiber protein

<220>
 <221> MISC_FEATURE
 <222> (23)..(23)
 <223> 'Xaa' at position 23 indicates unidentified amino acid due to unidentified nucleotide(s)

<220>
 <221> MISC_FEATURE
 <222> (43)..(43)
 <223> 'Xaa' at position 43 indicates unidentified amino acid due to unidentified nucleotide(s)

<220>
 <221> MISC_FEATURE
 <222> (49)..(49)
 <223> 'Xaa' at position 49 indicates unidentified amino acid due to unidentified nucleotide(s)

<220>

<221> MISC_FEATURE
 <222> (97)..(97)
 <223> 'Xaa' at position 97 indicates unidentified amino acid due to unidentified nucleotide(s)

<220>
 <221> MISC_FEATURE
 <222> (152)..(152)
 <223> 'Xaa' at position 152 indicates unidentified amino acid due to unidentified nucleotide(s)

<220>
 <221> MISC_FEATURE
 <222> (186)..~~(786)~~(186)
 <223> 'Xaa' at position 186 indicates unidentified amino acid due to unidentified nucleotide(s)

<400> 41

Ser Cys Ser Cys Pro Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met
 1 5 10 15

Lys Arg Ala Arg Pro Ser Xaa Asp Thr Phe Asn Pro Val Tyr Pro Tyr
 20 25 30

Gly Tyr Ala Arg Asn Gln Asn Ile Pro Phe Xaa Thr Pro Pro Phe Val
 35 40 45

Xaa Ser Asp Gly Phe Lys Asn Phe Pro Pro Gly Val Leu Ser Leu Lys
 50 55 60

Leu Ala Asp Pro Ile Ala Ile Thr Asn Gly Asp Val Ser Leu Lys Val
 65 70 75 80

Gly Gly Gly Leu Thr Val Glu Gln Asp Ser Gly Asn Leu Ser Val Asn
 85 90 95

Xaa Lys Ala Pro Leu Gln Val Gly Thr Asp Lys Lys Leu Glu Leu Ala
 100 105 110

Leu Ala Pro Pro Phe Asp Val Arg Asp Asn Lys Leu Ala Ile Leu Val
 115 120 125

Gly Asp Gly Leu Lys Val Ile Asp Arg Ser Ile Ser Asp Leu Pro Gly

130		135		140											
Leu 145	Leu 145	Asn 145	Tyr 145	Leu 145	Val 150	Val 150	Xaa 150	Thr 150	Gly 155	Lys 155	Gly 155	Ile 155	Gly 160	Asn 160	Glu 160
Glu 170	Leu 170	Lys 170	Asn 170	Asp 165	Asp 165	Gly 170	Ser 170	Asn 170	Lys 170	Gly 170	Val 170	Gly 175	Leu 175	Cys 175	Val 175
Arg 180	Ile 180	Gly 180	Glu 180	Gly 180	Gly 180	Gly 180	Leu 185	Thr 185	Xaa 185	Asp 185	Asp 185	Lys 190	Gly 190	Tyr 190	Leu 190
Val 195	Ala 195	Trp 195	Asn 195	Asn 195	Lys 195	His 195	Asp 200	Ile 200	Arg 200	Thr 200	Leu 205	Trp 205	Thr 205	Thr 205	Leu 205
Asp 210	Pro 210	Ser 210	Pro 210	Asn 210	Cys 210	Lys 215	Ile 215	Asp 215	Ile 215	Glu 220	Lys 220	Asp 220	Ser 220	Lys 220	Leu 220
Thr 225	Leu 225	Val 225	Leu 225	Thr 225	Lys 230	Cys 230	Gly 230	Ser 230	Gln 235	Ile 235	Leu 235	Ala 235	Asn 235	Val 235	Ser 240
Leu 245	Ile 245	Ile 245	Val 245	Asn 245	Gly 245	Lys 245	Phe 245	Lys 250	Ile 250	Leu 250	Asn 250	Asn 250	Lys 255	Thr 255	Asp 255
Pro 260	Ser 260	Leu 260	Pro 260	Lys 260	Ser 260	Phe 260	Asn 265	Ile 265	Lys 265	Leu 265	Leu 265	Phe 265	Asp 270	Gln 270	Asn 270
Gly 275	Val 275	Leu 275	Leu 275	Glu 275	Asn 275	Ser 275	Asn 280	Ile 280	Glu 280	Lys 280	Gln 280	Tyr 285	Leu 285	Asn 285	Phe 285
Arg 290	Ser 290	Gly 290	Asp 290	Ser 290	Ile 290	Leu 295	Pro 295	Glu 295	Pro 295	Tyr 295	Lys 300	Asn 300	Ala 300	Ile 300	Gly 300
Phe 305	Met 305	Pro 305	Asn 305	Leu 305	Leu 310	Ala 310	Tyr 310	Ala 310	Lys 315	Ala 315	Thr 315	Thr 315	Asp 315	Gln 315	Ser 320
Lys 325	Ile 325	Tyr 325	Ala 325	Arg 325	Asn 325	Thr 325	Ile 325	Tyr 325	Gly 330	Asn 330	Ile 330	Tyr 330	Leu 330	Asp 335	Asn 335
Gln 340	Pro 340	Tyr 340	Asn 340	Pro 340	Val 340	Val 340	Ile 340	Lys 345	Ile 345	Thr 345	Phe 345	Asn 345	Asn 345	Glu 345	Ala 345

Asp Ser Ala Tyr Ser Ile Thr Phe Asn Tyr Ser Trp Thr Lys Asp Tyr
 355 360 365

Asp Asn Ile Pro Phe Asp Ser Thr Ser Phe Thr Phe Ser Tyr Ile Ala
 370 375 380

Gln Glu
 385

<210> 42
 <211> 391
 <212> PRT
 <213> adenoviridae

<220>
 <221> VARIANT
 <222> (1)..(391)
 <223> Serotype 32 fiber protein

<400> 42

Ser Cys Ser Cys Pro Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met
 1 5 10 15

Lys Arg Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro Tyr
 20 25 30

Gly Tyr Ala Arg Asn Gln Asn Ile Pro Phe Leu Thr Pro Pro Phe Val
 35 40 45

Ser Ser Asp Gly Phe Gln Asn Phe Pro Pro Gly Val Leu Ser Leu Lys
 50 55 60

Leu Ala Asp Pro Ile Thr Ile Ala Asn Gly Asn Val Ser Leu Lys Val
 65 70 75 80

Gly Gly Gly Leu Thr Leu Glu Gln Asp Ser Gly Lys Leu Ile Val Asn
 85 90 95

Pro Lys Ala Pro Leu Gln Val Ala Asn Asp Lys Leu Glu Leu Ser Tyr
 100 105 110

Ala Asp Pro Phe Glu Thr Ser Ala Asn Lys Leu Ser Leu Lys Val Gly
 115 120 125

His Gly Leu Lys Val Leu Asp Glu Lys Asn Ala Gly Gly Leu Lys Asp
 130 135 140

Leu Ile Gly Thr Leu Val Val Leu Thr Gly Lys Gly Ile Gly Val Glu
 145 150 155 160

Glu Leu Lys Asn Ala Asp Asn Thr Asn Arg Gly Val Gly Ile Asn Val
 165 170 175

Arg Leu Gly Lys Asp Gly Gly Leu Ser Phe Asp Lys Lys Gly Asp Leu
 180 185 190

Val Ala Trp Asn Lys His Asp Asp Arg Arg Thr Leu Trp Thr Thr Pro
 195 200 205

Asp Pro Ser Pro Asn Cys Thr Ile Asp Glu Glu Arg Asp Ser Lys Leu
 210 215 220

Thr Leu Val Leu Thr Lys Cys Gly Ser Gln Ile Leu Ala Asn Val Ser
 225 230 235 240

Leu Leu Val Val Lys Gly Lys Phe Ser Asn Ile Asn Asn Asn Thr Asn
 245 250 255

Pro Thr Asp Lys Lys Ile Thr Val Lys Leu Leu Phe Asn Glu Lys Gly
 260 265 270

Val Leu Met Asp Ser Ser Ser Leu Lys Lys Glu Tyr Trp Asn Tyr Arg
 275 280 285

Asn Asp Asn Ser Thr Val Ser Gln Ala Tyr Asp Asn Ala Val Pro Phe
 290 295 300

Met Pro Asn Ile Lys Ala Tyr Pro Lys Pro Thr Thr Asp Thr Ser Ala
 305 310 315 320

Lys Pro Glu Asp Lys Lys Ser Ala Ala Lys Arg Tyr Ile Val Ser Asn
 325 330 335

Val Tyr Ile Gly Gly Leu Pro Asp Lys Thr Val Val Ile Thr Ile Lys

340 345 350
 Leu Asn Ala Glu Thr Glu Ser Ala Tyr Ser Met Thr Phe Glu Phe Thr
 355 360 365
 Trp Ala Lys Thr Phe Glu Asn Leu Gln Phe Asp Ser Ser Ser Phe Thr
 370 375 380
 Phe Ser Tyr Ile Ala Gln Glu
 385 390

<210> 43
 <211> 391
 <212> PRT
 <213> adenoviridae
 <220>
 <221> VARIANT
 <222> (1)..(391)
 <223> Serotype 33 fiber protein

<400> 43

Ser Cys Ser Cys Pro Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met
 1 5 10 15

Lys Arg Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro Tyr
 20 25 30

Gly Tyr Ala Arg Asn Gln Asn Ile Pro Phe Leu Thr Pro Pro Phe Val
 35 40 45

Ser Ser Asp Gly Phe Lys Asn Phe Pro Pro Gly Val Leu Ser Leu Lys
 50 55 60

Leu Ala Asp Pro Ile Thr Ile Thr Asn Gly Asp Val Ser Leu Lys Val
 65 70 75 80

Gly Gly Gly Leu Thr Leu Gln Glu Gly Ser Leu Thr Val Asn Pro Lys
 85 90 95

Ala Pro Leu Gln Leu Ala Asn Asp Lys Lys Leu Glu Leu Val Tyr Asp
 100 105 110

Asp Pro Phe Glu Val Ser Thr Asn Lys Leu Ser Leu Lys Val Gly His
115 120 125

Gly Leu Lys Val Leu Asp Asp Lys Ser Ala Gly Gly Leu Gln Asp Leu
130 135 140

Ile Gly Lys Leu Val Val Leu Thr Gly Lys Gly Ile Gly Ile Glu Asn
145 150 155 160

Leu Gln Asn Asp Asp Gly Ser Ser Arg Gly Val Gly Ile Asn Val Arg
165 170 175

Leu Gly Thr Asp Gly Gly Leu Ser Phe Asp Arg Lys Gly Glu Leu Val
180 185 190

Ala Trp Asn Arg Lys Asp Asp Arg Arg Thr Leu Trp Thr Thr Pro Asp
195 200 205

Pro Ser Pro Asn Cys Lys Ala Glu Thr Glu Lys Asp Ser Lys Leu Thr
210 215 220

Leu Val Leu Thr Lys Cys Gly Ser Gln Ile Leu Ala Thr Val Ser Ile
225 230 235 240

Ile Val Leu Lys Gly Lys Tyr Glu Phe Val Lys Lys Glu Thr Glu Pro
245 250 255

Lys Ser Phe Asp Val Lys Leu Leu Phe Asp Ser Lys Gly Val Leu Leu
260 265 270

Pro Thr Ser Asn Leu Ser Lys Glu Tyr Trp Asn Tyr Arg Ser Tyr Asp
275 280 285

Asn Asn Ile Gly Thr Pro Tyr Glu Asn Ala Val Pro Phe Met Pro Asn
290 295 300

Leu Lys Ala Tyr Pro Lys Pro Thr Lys Thr Ala Ser Asp Lys Ala Glu
305 310 315 320

Asn Lys Ile Ser Ser Ala Lys Asn Lys Ile Val Ser Asn Phe Tyr Phe
325 330 335

Gly Gly Gln Ala Tyr Gln Pro Gly Thr Ile Ile Ile Lys Phe Asn Glu
 340 345 350

Glu Ile Asp Glu Thr Cys Ala Tyr Ser Ile Thr Phe Asn Phe Gly Trp
 355 360 365

Gly Lys Val Tyr Asp Asn Pro Phe Pro Phe Asp Thr Thr Ser Phe Thr
 370 375 380

Phe Ser Tyr Ile Ala Gln Glu
 385 390

<210> 44
 <211> 338
 <212> PRT
 <213> adenoviridae
 <220>
 <221> VARIANT
 <222> (1)..(338)
 <223> Serotype 34 fiber protein

<400> 44

Ser Cys Ser Cys Pro Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met
 1 5 10 15

Lys Arg Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro Tyr
 20 25 30

Glu Asp Glu Ser Thr Ser Gln His Pro Phe Ile Asn Pro Gly Phe Ile
 35 40 45

Ser Pro Asn Gly Phe Thr Gln Ser Pro Asp Gly Val Leu Thr Leu Lys
 50 55 60

Cys Leu Thr Pro Leu Thr Thr Thr Gly Gly Ser Leu Gln Leu Lys Val
 65 70 75 80

Gly Gly Gly Leu Thr Val Asp Asp Thr Asp Gly Thr Leu Gln Lys Asn
 85 90 95

Ile	Arg	Ala	Thr	Thr	Pro	Ile	Thr	Lys	Asn	Asn	His	Ser	Val	Glu	Leu	100	105	110	
Thr	Ile	Gly	Asn	Gly	Leu	Glu	Thr	Gln	His	Asn	Lys	Leu	Cys	Ala	Lys	115	120	125	
Leu	Gly	Asn	Gly	Leu	Lys	Phe	Asn	Asn	Gly	Asp	Ile	Cys	Ile	Lys	Asp	130	135	140	
Ser	Ile	Asn	Thr	Leu	Trp	Thr	Gly	Ile	Asn	Pro	Pro	Pro	Asn	Cys	Gln	145	150	155	160
Ile	Val	Glu	Asn	Thr	Asn	Thr	Asn	Asp	Gly	Lys	Leu	Thr	Leu	Val	Leu	165	170	175	
Val	Lys	Asn	Gly	Gly	Leu	Val	Asn	Gly	Tyr	Val	Ser	Leu	Val	Gly	Val	180	185	190	
Ser	Asp	Thr	Val	Asn	Gln	Met	Phe	Thr	Gln	Lys	Thr	Ala	Asn	Ile	Gln	195	200	205	
Leu	Arg	Leu	Tyr	Phe	Asp	Ser	Ser	Gly	Asn	Leu	Leu	Thr	Asp	Glu	Ser	210	215	220	
Asp	Leu	Lys	Ile	Pro	Leu	Lys	Asn	Lys	Ser	Ser	Thr	Ala	Thr	Ser	Glu	225	230	235	240
Thr	Val	Ala	Ser	Ser	Lys	Ala	Phe	Met	Pro	Ser	Thr	Thr	Ala	Tyr	Pro	245	250	255	
Phe	Asn	Thr	Thr	Thr	Arg	Asp	Ser	Glu	Asn	Tyr	Ile	His	Gly	Ile	Cys	260	265	270	
Tyr	Tyr	Met	Thr	Ser	Tyr	Asp	Arg	Ser	Leu	Phe	Pro	Leu	Asn	Ile	Ser	275	280	285	
Ile	Met	Leu	Asn	Ser	Arg	Met	Ile	Ser	Ser	Asn	Val	Ala	Tyr	Ala	Ile	290	295	300	
Gln	Phe	Glu	Trp	Asn	Leu	Asn	Ala	Ser	Glu	Ser	Pro	Glu	Lys	Gln	His	305	310	315	320

Met Thr Leu Thr Thr Ser Pro Phe Phe Phe Ser Tyr Ile Ile Glu Asp
325 330 335

Asp Asn

<210> 45
<211> 338
<212> PRT
<213> adenoviridae

<220>
<221> VARIANT
<222> (1)..(338)
<223> Serotype 35 fiber protein

<400> 45

Ser Cys Ser Cys Pro Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met
1 5 10 15

Lys Arg Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro Tyr
20 25 30

Glu Asp Glu Ser Thr Ser Gln His Pro Phe Ile Asn Pro Gly Phe Ile
35 40 45

Ser Pro Asn Gly Phe Thr Gln Ser Pro Asp Gly Val Leu Thr Leu Lys
50 55 60

Cys Leu Thr Pro Leu Thr Thr Thr Gly Gly Ser Leu Gln Leu Lys Val
65 70 75 80

Gly Gly Gly Leu Thr Val Asp Asp Thr Asp Gly Thr Leu Gln Glu Asn
85 90 95

Ile Arg Ala Thr Ala Pro Ile Thr Lys Asn Asn His Ser Val Glu Leu
100 105 110

Ser Ile Gly Asn Gly Leu Glu Thr Gln Asn Asn Lys Leu Cys Ala Lys
115 120 125

Leu Gly Asn Gly Leu Lys Phe Asn Asn Gly Asp Ile Cys Ile Lys Asp

130		135		140
Ser Ile Asn Thr Leu Trp Thr Gly Ile Asn Pro Pro Pro Asn Cys Gln				
145		150		155 160
Ile Val Glu Asn Thr Asn Thr Asn Asp Gly Lys Leu Thr Leu Val Leu				
	165		170	175
Val Lys Asn Gly Gly Leu Val Asn Gly Tyr Val Ser Leu Val Gly Val				
	180		185	190
Ser Asp Thr Val Asn Gln Met Phe Thr Gln Lys Thr Ala Asn Ile Gln				
	195		200	205
Leu Arg Leu Tyr Phe Asp Ser Ser Gly Asn Leu Leu Thr Glu Glu Ser				
	210		215	220
Asp Leu Lys Ile Pro Leu Lys Asn Lys Ser Ser Thr Ala Thr Ser Glu				
225		230		235 240
Thr Val Ala Ser Ser Lys Ala Phe Met Pro Ser Thr Thr Ala Tyr Pro				
	245		250	255
Phe Asn Thr Thr Thr Arg Asp Ser Glu Asn Tyr Ile His Gly Ile Cys				
	260		265	270
Tyr Tyr Met Thr Ser Tyr Asp Arg Ser Leu Phe Pro Leu Asn Ile Ser				
	275		280	285
Ile Met Leu Asn Ser Arg Met Ile Ser Ser Asn Val Ala Tyr Ala Ile				
	290		295	300
Gln Phe Glu Trp Asn Leu Asn Ala Ser Glu Ser Pro Glu Ser Asn Ile				
305		310		315 320
Met Thr Leu Thr Thr Ser Pro Phe Phe Phe Ser Tyr Ile Thr Glu Asp				
	325		330	335
Asp Asn				

<210> 46
 <211> 392
 <212> PRT
 <213> adenoviridae

 <220>
 <221> VARIANT
 <222> (1)..(392)
 <223> Serotype 36 fiber protein

<400> 46

Ser Cys Ser Cys Pro Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met
 1 5 10 15

Lys Arg Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro Tyr
 20 25 30

Gly Tyr Ala Arg Asn Gln Asn Ile Pro Phe Leu Thr Pro Pro Phe Val
 35 40 45

Ser Ser Asp Gly Phe Lys Asn Phe Pro Pro Gly Val Leu Ser Leu Lys
 50 55 60

Leu Ala Asp Pro Ile Ala Ile Val Asn Gly Asp Val Ser Leu Lys Val
 65 70 75 80

Gly Gly Gly Leu Thr Val Glu Gln Asp Ser Gly Lys Leu Lys Val Asn
 85 90 95

Pro Lys Ile Pro Leu Gln Val Val Asn Asp Gln Leu Glu Leu Ala Thr
 100 105 110

Asp Lys Pro Phe Lys Ile Glu Asn Asn Lys Leu Ala Leu Asp Val Gly
 115 120 125

His Gly Leu Lys Val Ile Asp Lys Thr Ile Ser Asp Leu Gln Gly Leu
 130 135 140

Val Gly Lys Leu Val Val Leu Thr Gly Val Gly Ile Gly Thr Glu Thr
 145 150 155 160

Leu Lys Asp Lys Asn Asp Lys Val Ile Gly Ser Ala Val Asn Val Arg
 165 170 175

Leu Gly Lys Asp Gly Gly Leu Asp Phe Asn Lys Lys Gly Asp Leu Val
180 185 190

Ala Trp Asn Arg Tyr Asp Asp Arg Arg Thr Leu Trp Thr Thr Pro Asp
195 200 205

Pro Ser Pro Asn Cys Lys Val Ser Glu Ala Lys Asp Ser Lys Leu Thr
210 215 220

Leu Val Leu Thr Lys Cys Gly Ser Gln Ile Leu Ala Ser Val Ala Leu
225 230 235 240

Leu Ile Val Lys Gly Lys Tyr Gln Thr Ile Ser Glu Ser Thr Ile Pro
245 250 255

Lys Asp Gln Arg Asn Phe Ser Val Lys Leu Met Phe Asp Glu Lys Gly
260 265 270

Lys Leu Leu Asp Lys Ser Ser Leu Asp Lys Glu Tyr Trp Asn Phe Arg
275 280 285

Ser Asn Asp Ser Val Val Gly Thr Ala Tyr Asp Asn Ala Val Pro Phe
290 295 300

Met Pro Asn Leu Lys Ala Tyr Pro Lys Asn Thr Thr Thr Ser Ser Thr
305 310 315 320

Asn Pro Asp Asp Lys Ile Ser Ala Gly Lys Lys Asn Ile Val Ser Asn
325 330 335

Val Tyr Leu Glu Gly Arg Val Tyr Gln Pro Val Ala Leu Thr Val Lys
340 345 350

Phe Asn Ser Glu Asn Asp Cys Ala Tyr Ser Ile Thr Phe Asp Phe Val
355 360 365

Trp Ser Lys Thr Tyr Glu Ser Pro Val Ala Phe Asp Ser Ser Ser Phe
370 375 380

Thr Phe Ser Tyr Ile Ala Gln Glu

385

390

<210> 47

<211> 380

<212> PRT

<213> adenoviridae

<220>

<221> VARIANT

<222> (1)..(380)

<223> Serotype 37 fiber protein

<400> 47

Ser Cys Ser Cys Pro Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met
1 5 10 15

Lys Arg Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro Tyr
20 25 30

Gly Tyr Ala Arg Asn Gln Asn Ile Pro Phe Leu Thr Pro Pro Phe Val
35 40 45

Ser Ser Asp Gly Phe Lys Asn Phe Pro Pro Gly Val Leu Ser Leu Lys
50 55 60

Leu Ala Asp Pro Ile Thr Ile Thr Asn Gly Asp Val Ser Leu Lys Val
65 70 75 80

Gly Gly Gly Leu Thr Leu Gln Asp Gly Ser Leu Thr Val Asn Pro Lys
85 90 95

Ala Pro Leu Gln Val Asn Thr Asp Lys Lys Leu Glu Leu Ala Tyr Asp
100 105 110

Asn Pro Phe Glu Ser Ser Ala Asn Lys Leu Ser Leu Lys Val Gly His
115 120 125

Gly Leu Lys Val Leu Asp Glu Lys Ser Ala Ala Gly Leu Lys Asp Leu
130 135 140

Ile Gly Lys Leu Val Val Leu Thr Gly Lys Gly Ile Gly Thr Glu Asn
145 150 155 160

Leu Glu Asn Thr Asp Gly Ser Ser Arg Gly Ile Gly Ile Asn Val Arg
 165 170 175

Ala Arg Glu Gly Leu Thr Phe Asp Asn Asp Gly Tyr Leu Val Ala Trp
 180 185 190

Asn Pro Lys Tyr Asp Leu Arg Thr Leu Trp Thr Thr Pro Asp Thr Ser
 195 200 205

Pro Asn Cys Thr Ile Ala Gln Asp Lys Asp Ser Lys Leu Thr Leu Val
 210 215 220

Leu Thr Lys Cys Gly Ser Gln Ile Leu Ala Asn Val Ser Leu Ile Val
 225 230 235 240

Val Ala Gly Lys Tyr His Ile Ile Asn Asn Lys Thr Asn Pro Lys Ile
 245 250 255

Lys Ser Phe Thr Ile Lys Leu Leu Phe Asn Lys Asn Gly Val Leu Leu
 260 265 270

Asp Asn Ser Asn Leu Gly Lys Ala Tyr Trp Asn Phe Arg Ser Gly Asn
 275 280 285

Ser Asn Val Ser Thr Ala Tyr Glu Lys Ala Ile Gly Phe Met Pro Asn
 290 295 300

Leu Val Ala Val Ser Lys Pro Ser Asn Ser Lys Lys Tyr Ala Arg Asp
 305 310 315 320

Ile Val Tyr Gly Asn Ile Tyr Leu Gly Gly Lys Pro Asp Gln Pro Gly
 325 330 335

Val Ile Lys Thr Thr Phe Asn Gln Glu Thr Gly Cys Glu Tyr Ser Ile
 340 345 350

Thr Phe Asn Phe Ser Trp Ser Lys Thr Tyr Glu Asn Val Glu Phe Glu
 355 360 365

Thr Thr Ser Phe Thr Phe Ser Tyr Ile Ala Gln Glu
 370 375 380

<210> 48
 <211> 391
 <212> PRT
 <213> adenoviridae

<220>
 <221> VARIANT
 <222> (1)..(391)
 <223> Serotype 39 fiber protein

<220>
 <221> MISC_FEATURE
 <222> (43)..(43)
 <223> 'Xaa' at position 43 indicates an unidentified amino acid due to unidentified nucleotide(s)

<220>
 <221> MISC_FEATURE
 <222> (49)..(49)
 <223> 'Xaa' at position 49 indicates an unidentified amino acid due to unidentified nucleotide(s)

<220>
 <221> MISC_FEATURE
 <222> (97)..(97)
 <223> 'Xaa' at position 97 indicates an unidentified amino acid due to unidentified nucleotide(s)

<220>
 <221> MISC_FEATURE
 <222> (192)..(192)
 <223> 'Xaa' at position 192 indicates an unidentified amino acid due to unidentified nucleotide(s)

<400> 48

Ser Cys Ser Cys Pro Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met
 1 5 10 15

Lys Arg Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro Tyr
 20 25 30

Gly Tyr Ala Arg Asn Gln Asn Ile Pro Phe Xaa Thr Pro Pro Phe Val
 35 40 45

Xaa Ser Asp Gly Phe Gln Asn Phe Pro Pro Gly Val Leu Ser Leu Lys
 50 55 60

Leu Ala Asp Pro Ile Thr Ile Ala Asn Gly Asn Val Ser Leu Lys Val
 65 70 75 80

Gly Gly Gly Leu Thr Leu Glu Gln Asp Ser Gly Lys Leu Ile Val Asn
 85 90 95

Xaa Lys Ala Pro Leu Gln Val Ala Asn Asp Lys Leu Glu Leu Ser Tyr
 100 105 110

Ala Asp Pro Phe Glu Thr Ser Ala Asn Lys Leu Ser Leu Lys Val Gly
 115 120 125

His Gly Leu Lys Val Leu Asp Glu Lys Asn Ala Gly Gly Leu Lys Asp
 130 135 140

Leu Ile Gly Thr Leu Val Val Leu Thr Gly Lys Gly Ile Gly Val Glu
 145 150 155 160

Glu Leu Lys Asn Ala Asp Asn Thr Asn Arg Gly Val Gly Ile Asn Val
 165 170 175

Arg Leu Gly Lys Asp Gly Gly Leu Ser Phe Asp Lys Lys Gly Asp Xaa
 180 185 190

Val Ala Trp Asn Lys His Asp Asp Arg Arg Thr Leu Trp Thr Thr Pro
 195 200 205

Asp Pro Ser Pro Asn Cys Thr Ile Asp Glu Glu Arg Asp Ser Lys Leu
 210 215 220

Thr Leu Val Leu Thr Lys Cys Gly Ser Gln Ile Leu Ala Asn Val Ser
 225 230 235 240

Leu Leu Val Val Lys Gly Lys Phe Ser Asn Ile Asn Asn Asn Thr Asn
 245 250 255

Pro Thr Asp Lys Lys Ile Thr Val Lys Leu Leu Phe Asn Glu Lys Gly
 260 265 270

Val Leu Met Asp Ser Ser Ser Leu Lys Lys Glu Tyr Trp Asn Tyr Arg
 275 280 285

Asn Asp Asn Ser Thr Val Ser Gln Ala Tyr Asp Asn Ala Val Pro Phe
 290 295 300

Met Pro Asn Ile Lys Ala Tyr Pro Lys Pro Thr Thr Asp Thr Ser Ala
 305 310 315 320

Lys Pro Glu Asp Lys Lys Ser Ala Ala Lys Arg Tyr Ile Val Ser Asn
 325 330 335

Val Tyr Ile Gly Gly Leu Pro Asp Lys Thr Val Val Ile Thr Ile Lys
 340 345 350

Leu Asn Ala Glu Thr Glu Ser Ala Tyr Ser Met Thr Phe Glu Phe Thr
 355 360 365

Trp Ala Lys Thr Phe Glu Asn Leu Gln Phe Asp Ser Ser Ser Phe Thr
 370 375 380

Phe Ser Tyr Ile Ala Gln Glu
 385 390

<210> 49
 <211> 339
 <212> PRT
 <213> adenoviridae

<220>
 <221> VARIANT
 <222> (1)..(339)
 <223> Serotype 39 fiber protein

<400> 49

Ile Arg Ile Ser Pro Ser Ser Leu Pro Pro Leu Ser Pro Pro Met Asp
 1 5 10 15

Ser Lys Thr Ser Pro Leu Gly Cys Tyr His Ser Asn Trp Leu Thr Gln
 20 25 30

Ser Pro Ser Pro Met Gly Met Ser His Ser Arg Trp Glu Gly Gly Ser

35	40	45																	
Pro	Trp	Gln	Glu	Gly	Thr	Gly	Asp	Leu	Lys	Val	Asn	Ala	Lys	Ser	Pro				
50						55					60								
Leu	Gln	Val	Ala	Thr	Asn	Lys	Gln	Leu	Glu	Ile	Ala	Leu	Ala	Lys	Pro				
65					70					75					80				
Phe	Glu	Glu	Lys	Asp	Gly	Lys	Leu	Ala	Leu	Lys	Ile	Gly	His	Gly	Leu				
				85					90					95					
Ala	Val	Val	Asp	Glu	Asn	His	Thr	His	Leu	Gln	Ser	Leu	Ile	Gly	Thr				
			100					105						110					
Leu	Val	Ile	Leu	Thr	Gly	Lys	Gly	Ile	Gly	Thr	Gly	Arg	Ala	Glu	Ser				
		115					120					125							
Gly	Gly	Thr	Ile	Asp	Val	Arg	Leu	Gly	Ser	Gly	Gly	Gly	Leu	Ser	Phe				
	130					135					140								
Asp	Lys	Asp	Gly	Asn	Leu	Val	Ala	Trp	Asn	Lys	Asp	Asp	Asp	Arg	Arg				
145					150					155					160				
Thr	Leu	Trp	Thr	Thr	Pro	Asp	Pro	Ser	Pro	Asn	Cys	Lys	Ile	Asp	Gln				
				165					170					175					
Asp	Lys	Asp	Ser	Lys	Leu	Thr	Phe	Val	Leu	Thr	Lys	Cys	Gly	Ser	Gln				
			180					185					190						
Ile	Leu	Ala	Asn	Met	Ser	Leu	Leu	Val	Val	Lys	Gly	Lys	Phe	Ser	Met				
		195					200					205							
Ile	Asn	Asn	Lys	Val	Asn	Gly	Thr	Asp	Asp	Tyr	Lys	Lys	Phe	Thr	Ile				
	210					215					220								
Lys	Leu	Leu	Phe	Asp	Glu	Lys	Gly	Val	Leu	Leu	Lys	Asp	Ser	Ser	Leu				
225					230					235					240				
Asp	Lys	Glu	Tyr	Trp	Asn	Tyr	Arg	Ser	Asn	Asn	Asn	Asn	Val	Gly	Ser				
				245					250					255					

Ala Tyr Glu Glu Ala Val Gly Phe Met Pro Ser Thr Thr Ala Tyr Pro
 260 265 270

Lys Pro Pro Thr Pro Pro Thr Asn Pro Thr Thr Pro Leu Glu Lys Ser
 275 280 285

Gln Ala Lys Asn Lys Tyr Val Ser Asn Val Tyr Leu Gly Gly Gln Ala
 290 295 300

Gly Asn Pro Val Ala Thr Thr Val Ser Phe Asn Lys Glu Thr Gly Cys
 305 310 315 320

Thr Tyr Ser Ile Thr Phe Asp Phe Ala Trp Asn Lys Thr Tyr Glu Asn
 325 330 335

Val Gln Cys

<210> 50
 <211> 380
 <212> PRT
 <213> adenoviridae

<220>
 <221> VARIANT
 <222> (1)..(380)
 <223> Serotype 42 fiber protein

<220>
 <221> MISC_FEATURE
 <222> (237)..(237)
 <223> 'Xaa' at position 237 indicates an unidentified amino acid due to
 unidentified nucleotide(s)

<400> 50

Ser Cys Ser Cys Pro Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met
 1 5 10 15

Lys Arg Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro Tyr
 20 25 30

Gly Tyr Ala Arg Asn Gln Asn Ile Pro Phe Leu Thr Pro Pro Phe Val
 35 40 45

Ser Ser Asp Gly Phe Lys Asn Phe Pro Pro Gly Val Leu Ser Leu Lys
 50 55 60

Leu Ala Asn Pro Ile Ala Ile Thr Asn Gly Asp Val Ser Leu Lys Val
 65 70 75 80

Gly Gly Gly Leu Thr Leu Gln Asp Gly Thr Gly Lys Leu Thr Ile Asp
 85 90 95

Thr Lys Thr Pro Leu Gln Val Ala Asn Asn Lys Leu Glu Leu Ala Phe
 100 105 110

Asp Ala Pro Leu Tyr Glu Lys Asn Gly Lys Leu Ala Leu Lys Thr Gly
 115 120 125

His Gly Leu Ala Val Leu Thr Lys Asp Ile Gly Ile Pro Glu Leu Ile
 130 135 140

Gly Ser Leu Val Ile Leu Thr Gly Lys Gly Ile Gly Thr Gly Thr Val
 145 150 155 160

Ala Gly Gly Gly Thr Ile Asp Val Arg Leu Gly Asp Asp Gly Gly Leu
 165 170 175

Ser Phe Asp Lys Lys Gly Asp Leu Val Ala Trp Asn Lys Lys Asn Asp
 180 185 190

Arg Arg Thr Leu Trp Thr Thr Pro Asp Pro Ser Pro Asn Cys Arg Val
 195 200 205

Ser Glu Asp Lys Asp Ser Lys Leu Thr Leu Ile Leu Thr Lys Cys Gly
 210 215 220

Ser Gln Ile Leu Ala Ser Phe Ser Leu Leu Val Val Xaa Gly Thr Tyr
 225 230 235 240

Thr Thr Val Asp Lys Asn Thr Thr Asn Lys Gln Phe Ser Ile Lys Leu
 245 250 255

Leu Phe Asp Ala Asn Gly Lys Leu Lys Ser Glu Ser Asn Leu Ser Gly
 260 265 270

Tyr Trp Asn Tyr Arg Ser Asp Asn Ser Val Val Ser Thr Pro Tyr Asp
 275 280 285

Asn Ala Val Pro Phe Met Pro Asn Thr Thr Ala Tyr Pro Lys Ile Ile
 290 295 300

Asn Ser Thr Thr Asp Pro Glu Asn Lys Lys Ser Ser Ala Lys Lys Thr
 305 310 315 320

Ile Val Gly Asn Val Tyr Leu Glu Gly Asn Ala Gly Gln Pro Val Ala
 325 330 335

Val Ala Ile Ser Phe Asn Lys Glu Thr Thr Ala Asp Tyr Ser Ile Thr
 340 345 350

Phe Asp Phe Ala Trp Ser Lys Ala Tyr Glu Thr Pro Val Pro Phe Asp
 355 360 365

Thr Ser Ser Met Thr Phe Ser Tyr Ile Ala Gln Glu
 370 375 380

<210> 51
 <211> 328
 <212> PRT
 <213> adenoviridae

<220>
 <221> VARIANT
 <222> (1)..(328)
 <223> Serotype 43 fiber protein

<220>
 <221> MISC_FEATURE
 <222> (4)..(4)
 <223> 'Xaa' at position 4 indicates an unidentified amino acid due to u
 nidentified nucleotide(s)

<220>
 <221> MISC_FEATURE
 <222> (232)..(233)
 <223> 'Xaa' at positions 232 and 233 indicate an unidentified amino aci
 d due to unidentified nucleotide(s)

<400> 51

Asn Ile Pro Xaa Leu Thr Pro Pro Phe Val Ser Ser Asp Gly Phe Lys
1 5 10 15

Asn Phe Pro Pro Gly Val Leu Ser Leu Lys Leu Ala Asp Pro Ile Thr
20 25 30

Ile Thr Asn Gly Asp Val Ser Leu Lys Val Gly Gly Gly Leu Thr Val
35 40 45

Glu Lys Glu Ser Gly Asn Leu Thr Val Asn Pro Lys Ala Pro Leu Gln
50 55 60

Val Ala Lys Gly Gln Leu Glu Leu Ala Tyr Asp Ser Pro Phe Asp Val
65 70 75 80

Lys Asn Asn Met Leu Thr Leu Lys Ala Gly His Gly Leu Ala Val Val
85 90 95

Thr Lys Asp Asn Thr Asp Leu Gln Pro Leu Met Gly Thr Leu Val Val
100 105 110

Leu Thr Gly Lys Gly Ile Gly Thr Gly Thr Ser Ala His Gly Gly Thr
115 120 125

Ile Asp Val Arg Ile Gly Lys Asn Gly Ser Leu Ala Phe Asp Lys Asp
130 135 140

Gly Asp Leu Val Ala Trp Asp Lys Glu Asn Asp Arg Arg Thr Leu Trp
145 150 155 160

Thr Thr Pro Asp Thr Ser Pro Asn Cys Lys Met Ser Glu Ala Lys Asp
165 170 175

Ser Lys Leu Thr Leu Ile Leu Thr Lys Cys Gly Ser Gln Ile Leu Gly
180 185 190

Ser Val Ser Leu Leu Ala Val Lys Gly Glu Tyr Gln Asn Met Thr Ala
195 200 205

Asn Thr Lys Lys Asn Val Lys Ile Thr Leu Leu Phe Asp Ala Asn Gly

210	215	220
Val Leu Leu Ala Gly Ser Ser Xaa Xaa Lys Glu Tyr Trp Asn Phe Arg		
225	230	235 240
Ser Asn Asp Ser Thr Val Ser Gly Asn Tyr Glu Asn Ala Val Gln Phe		
	245	250 255
Met Pro Asn Ile Thr Ala Tyr Lys Pro Thr Asn Ser Lys Ser Tyr Ala		
	260	265 270
Arg Ser Val Ile Phe Gly Asn Val Tyr Ile Asp Ala Lys Pro Tyr Asn		
	275	280 285
Pro Val Val Ile Lys Ile Ser Phe Asn Gln Glu Thr Gln Asn Asn Cys		
	290	295 300
Val Tyr Ser Ile Ser Phe Asp Tyr Thr Leu Ser Lys Asp Tyr Pro Asn		
305	310	315 320
Met Gln Phe Asp Val Thr Leu Ser		
	325	

<210> 52
 <211> 341
 <212> PRT
 <213> adenoviridae

 <220>
 <221> VARIANT
 <222> (1)..(341)
 <223> Serotype 44 fiber protein

<400> 52

 Asn Ile Pro Phe Leu Thr Pro Pro Phe Val Ser Ser Asp Gly Phe Gln
 1 5 10 15

 Asn Phe Pro Pro Gly Val Leu Ser Leu Lys Leu Ala Asp Pro Ile Thr
 20 25 30

 Ile Thr Asn Gly Asn Val Ser Leu Lys Val Gly Gly Gly Leu Thr Leu
 35 40 45

Gln Glu Gly Thr Gly Asp Leu Lys Val Asn Ala Lys Ser Pro Leu Gln
 50 55 60

Val Ala Thr Asn Lys Gln Leu Glu Ile Ala Leu Ala Lys Pro Phe Glu
 65 70 75 80

Glu Lys Asp Gly Lys Leu Ala Leu Lys Ile Gly His Gly Leu Ala Val
 85 90 95

Val Asp Glu Asn His Thr His Leu Gln Ser Leu Ile Gly Thr Leu Val
 100 105 110

Ile Leu Thr Gly Lys Gly Ile Gly Thr Gly Ser Ala Glu Ser Gly Gly
 115 120 125

Thr Ile Asp Val Arg Leu Gly Ser Gly Gly Gly Leu Ser Phe Asp Lys
 130 135 140

Asp Gly Asn Leu Val Ala Trp Asn Lys Asp Asp Asp Arg Arg Thr Leu
 145 150 155 160

Trp Thr Thr Pro Asp Pro Ser Pro Asn Cys Lys Ile Asp Gln Asp Lys
 165 170 175

Asp Ser Lys Leu Thr Phe Val Leu Thr Lys Cys Gly Ser Gln Ile Leu
 180 185 190

Ala Asn Met Ser Leu Leu Val Val Lys Gly Lys Phe Ser Met Ile Asn
 195 200 205

Asn Lys Val Asn Gly Thr Asp Asp Tyr Lys Lys Phe Thr Ile Lys Leu
 210 215 220

Leu Phe Asp Glu Lys Gly Val Leu Leu Lys Asp Ser Ser Leu Asp Lys
 225 230 235 240

Glu Tyr Trp Asn Tyr Arg Ser Asn Asn Asn Asn Val Gly Ser Ala Tyr
 245 250 255

Glu Glu Ala Val Gly Phe Met Pro Ser Thr Thr Ala Tyr Pro Lys Pro
 260 265 270

Pro Thr Pro Pro Thr Asn Pro Thr Thr Pro Leu Glu Lys Ser Gln Ala
 275 280 285

Lys Asn Lys Tyr Val Ser Asn Val Tyr Leu Gly Gly Gln Ala Gly Asn
 290 295 300

Pro Val Ala Thr Thr Val Ser Phe Asn Lys Glu Thr Gly Cys Thr Tyr
 305 310 315 320

Ser Ile Thr Phe Asp Phe Ala Trp Asn Lys Thr Tyr Glu Asn Val Gln
 325 330 335

Phe Asp Ser Ser Phe
 340

<210> 53
 <211> 345
 <212> PRT
 <213> adenoviridae

<220>
 <221> VARIANT
 <222> (1)..(345)
 <223> Serotype 45 fiber protein

<400> 53

Asn Ile Pro Phe Leu Thr Pro Pro Phe Val Ser Ser Asp Gly Phe Gln
 1 5 10 15

Asn Phe Pro Pro Gly Val Leu Ser Leu Lys Leu Ala Asp Pro Ile Ala
 20 25 30

Ile Thr Asn Gly Asp Val Ser Leu Lys Val Gly Gly Gly Leu Thr Val
 35 40 45

Glu Lys Asp Ser Gly Asn Leu Lys Val Asn Pro Lys Ala Pro Leu Gln
 50 55 60

Val Thr Thr Asp Lys Gln Leu Glu Ile Ala Leu Ala Tyr Pro Phe Glu
 65 70 75 80

Val Ser Asn Gly Lys Leu Gly Ile Lys Ala Gly His Gly Leu Lys Val
 85 90 95

Ile Asp Lys Ile Ala Gly Leu Glu Gly Leu Ala Gly Thr Leu Val Val
 100 105 110

Leu Thr Gly Lys Gly Ile Gly Thr Glu Asn Leu Glu Asn Ser Asp Gly
 115 120 125

Ser Ser Arg Gly Val Gly Ile Asn Val Arg Leu Ala Lys Asp Gly Val
 130 135 140

Leu Ala Phe Asp Lys Lys Gly Asp Leu Val Ala Trp Asn Lys His Asp
 145 150 155 160

Asp Arg Arg Thr Leu Trp Thr Thr Pro Asp Pro Ser Pro Asn Cys Thr
 165 170 175

Ile Asp Gln Glu Arg Asp Ser Lys Leu Thr Leu Val Leu Thr Lys Cys
 180 185 190

Gly Ser Gln Ile Leu Ala Asn Val Ser Leu Leu Val Val Lys Gly Lys
 195 200 205

Phe Ser Asn Ile Asn Asn Asn Ala Asn Pro Thr Asp Lys Lys Ile Thr
 210 215 220

Val Lys Leu Leu Phe Asn Glu Lys Gly Val Leu Met Asp Ser Ser Thr
 225 230 235 240

Leu Lys Lys Glu Tyr Trp Asn Tyr Arg Asn Asp Asn Ser Thr Val Ser
 245 250 255

Gln Ala Tyr Asp Asn Ala Val Pro Phe Met Pro Asn Ile Lys Ala Tyr
 260 265 270

Pro Lys Pro Ser Thr Asp Thr Ser Ala Lys Pro Glu Asp Lys Lys Ser
 275 280 285

Ala Ala Lys Arg Tyr Ile Val Ser Asn Val Tyr Ile Gly Gly Leu Pro
 290 295 300

Asp Lys Thr Val Val Ile Thr Ile Lys Phe Asn Ala Glu Thr Glu Cys
 305 310 315 320

Ala Tyr Ser Ile Thr Phe Glu Phe Thr Trp Ala Lys Thr Phe Glu Asp
 325 330 335

Val Gln Cys Asp Ser Ser Ser Phe Thr
 340 345

<210> 54
 <211> 340
 <212> PRT
 <213> adenoviridae

<220>
 <221> VARIANT
 <222> (1)..(340)
 <223> Serotype 46 fiber protein

<400> 54

Asn Ile Pro Phe Leu Thr Pro Pro Phe Val Ser Ser Asp Gly Phe Lys
 1 5 10 15

Asn Phe Pro Pro Gly Val Leu Ser Leu Lys Leu Ala Asp Pro Ile Ala
 20 25 30

Ile Val Asn Gly Asp Val Ser Leu Lys Val Gly Gly Gly Leu Thr Leu
 35 40 45

Gln Glu Gly Asn Leu Thr Val Asp Ala Lys Ala Pro Leu Gln Val Ala
 50 55 60

Asn Asp Asn Lys Leu Glu Leu Ser Tyr Ala Asp Pro Phe Glu Val Lys
 65 70 75 80

Asp Thr Lys Leu Gln Leu Lys Val Gly His Gly Leu Lys Val Ile Asp
 85 90 95

Glu Lys Thr Ser Ser Gly Leu Gln Ser Leu Ile Gly Asn Leu Val Val
 100 105 110

Leu Thr Gly Lys Gly Ile Gly Thr Gln Glu Leu Lys Asp Lys Asp Asp

115		120		125
Glu Thr Lys Asn Ile Gly Val Gly Ile Asn Val Arg Ile Gly Lys Asn				
130		135		140
Glu Ser Leu Ala Phe Asp Lys Asp Gly Asn Leu Val Ala Trp Asp Asn				
145		150		155
				160
Glu Asn Asp Arg Arg Thr Leu Trp Thr Thr Pro Asp Thr Ser Ser Lys				
		165		170
				175
Phe Val Lys Ile Ser Thr Glu Lys Asp Ser Lys Leu Thr Leu Val Leu				
		180		185
				190
Thr Lys Cys Gly Ser Gln Ile Leu Ala Ser Val Ser Leu Leu Ala Val				
		195		200
				205
Ala Gly Ser Tyr Leu Asn Met Thr Ala Ser Thr Gln Lys Ser Ile Lys				
		210		215
				220
Val Ser Leu Met Phe Asp Ser Lys Gly Leu Leu Met Thr Thr Ser Ser				
		225		230
				235
				240
Ile Asp Lys Gly Tyr Trp Asn Tyr Arg Asn Lys Asn Ser Val Val Gly				
		245		250
				255
Thr Ala Tyr Glu Asn Ala Ile Pro Phe Met Pro Asn Leu Val Ala Tyr				
		260		265
				270
Pro Arg Pro Asn Thr Pro Asp Ser Lys Ile Tyr Ala Arg Ser Lys Ile				
		275		280
				285
Val Gly Asn Val Tyr Leu Ala Gly Leu Ala Tyr Gln Pro Ile Val Ile				
		290		295
				300
Thr Val Ser Phe Asn Gln Glu Lys Asp Ala Ser Cys Ala Tyr Ser Ile				
		305		310
				315
				320
Thr Phe Glu Phe Ala Trp Asn Lys Asp Tyr Val Gly Gln Phe Asp Thr				
		325		330
				335

Thr Ser Phe Thr
340

<210> 55
<211> 389
<212> PRT
<213> adenoviridae

<220>
<221> VARIANT
<222> (1)..(389)
<223> Serotype 47 fiber protein

<400> 55

Ser Cys Pro Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met Lys Arg
1 5 10 15

Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro Tyr Gly Tyr
20 25 30

Ala Arg Asn Gln Asn Ile Pro Phe Leu Thr Pro Pro Phe Val Ser Ser
35 40 45

Asp Gly Phe Lys Asn Phe Pro Pro Gly Val Leu Ser Leu Lys Leu Ala
50 55 60

Asp Pro Ile Thr Ile Thr Asn Gly Asp Val Ser Leu Lys Val Gly Gly
65 70 75 80

Gly Leu Thr Leu Gln Glu Gly Thr Gly Asn Leu Thr Val Asn Ala Lys
85 90 95

Ala Pro Leu Gln Val Ala Asp Asp Lys Lys Leu Glu Leu Ser Tyr Asp
100 105 110

Asn Pro Phe Glu Val Ser Ala Asn Lys Leu Ser Leu Lys Val Gly His
115 120 125

Gly Leu Lys Val Leu Asp Glu Lys Asn Ser Gly Gly Leu Gln Glu Leu
130 135 140

Ile Gly Lys Leu Val Ile Leu Thr Gly Lys Gly Ile Gly Val Glu Glu
145 150 155 160

Leu Lys Asn Ala Asp Asn Thr Asn Arg Gly Val Gly Ile Asn Val Arg
165 170 175

Leu Gly Lys Asp Gly Gly Leu Ser Phe Asp Lys Lys Gly Glu Leu Val
180 185 190

Ala Trp Asn Lys His Asn Asp Thr Arg Thr Leu Trp Thr Thr Pro Asp
195 200 205

Pro Ser Pro Asn Cys Lys Ile Glu Gln Asp Lys Asp Ser Lys Leu Thr
210 215 220

Leu Val Leu Thr Lys Cys Gly Ser Gln Ile Leu Ala Thr Met Ala Phe
225 230 235 240

Gln Val Val Lys Gly Thr Tyr Glu Asn Ile Ser Lys Asn Thr Ala Lys
245 250 255

Lys Ser Phe Ser Ile Lys Leu Leu Phe Asp Asp Asn Gly Lys Leu Leu
260 265 270

Glu Gly Ser Ser Leu Asp Lys Asp Tyr Trp Asn Phe Arg Asn Asp Asp
275 280 285

Ser Ile Met Pro Asn Gln Tyr Asp Asn Ala Val Pro Phe Met Pro Asn
290 295 300

Leu Lys Ala Tyr Pro Asn Pro Lys Thr Ser Thr Val Leu Pro Ser Thr
305 310 315 320

Asp Lys Lys Ser Asn Gly Lys Asn Thr Ile Val Ser Asn Leu Tyr Leu
325 330 335

Glu Gly Lys Ala Tyr Gln Pro Val Ala Val Thr Ile Thr Phe Asn Lys
340 345 350

Glu Thr Gly Cys Thr Tyr Ser Ile Thr Phe Glu Phe Gly Trp Ala Lys
355 360 365

Thr Tyr Asp Val Pro Ile Pro Phe Asp Ser Ser Ser Phe Thr Phe Ser

370

375

380

Tyr Ile Ala Gln Glu
385

<210> 56

<211> 343

<212> PRT

<213> adenoviridae

<220>

<221> VARIANT

<222> (1)..(343)

<223> Serotype 48 fiber protein

<400> 56

Ser Asp Ile Pro Phe Leu Thr Pro Pro Phe Val Ser Ser Asp Gly Phe
1 5 10 15

Gln Asn Phe Pro Pro Gly Val Leu Ser Leu Lys Leu Ala Asp Pro Ile
20 25 30

Thr Ile Thr Asn Gly Asn Val Ser Leu Lys Val Gly Gly Gly Leu Thr
35 40 45

Leu Gln Glu Gly Thr Gly Asp Leu Lys Val Asn Ala Lys Ser Pro Leu
50 55 60

Gln Val Ala Thr Asn Lys Gln Leu Glu Ile Ala Leu Ala Lys Pro Phe
65 70 75 80

Glu Glu Lys Asp Gly Lys Leu Ala Leu Lys Ile Gly His Glu Leu Ala
85 90 95

Val Val Asp Glu Asn Leu Thr His Leu Gln Ser Leu Ile Gly Thr Leu
100 105 110

Val Ile Leu Thr Gly Lys Gly Ile Gly Thr Gly Arg Ala Glu Ser Gly
115 120 125

Gly Thr Ile Asp Val Arg Leu Gly Ser Gly Gly Gly Leu Ser Phe Asp
130 135 140

Lys Asp Gly Asn Leu Val Ala Trp Asn Lys Asp Asp Asp Arg Arg Thr
 145 150 155 160

Leu Trp Thr Thr Pro Asp Pro Ser Pro Asn Cys Lys Ile Asp Gln Asp
 165 170 175

Lys Asp Ser Lys Leu Thr Phe Val Leu Thr Lys Cys Gly Ser Gln Ile
 180 185 190

Leu Ala Asn Met Ser Leu Leu Val Val Lys Gly Lys Phe Ser Met Ile
 195 200 205

Asn Asn Lys Val Asn Gly Thr Asp Asp Tyr Lys Lys Phe Thr Ile Lys
 210 215 220

Leu Leu Phe Asp Glu Lys Gly Val Leu Leu Lys Asp Ser Ser Leu Asp
 225 230 235 240

Lys Glu Tyr Trp Asn Tyr Arg Ser Asn Asn Asn Asn Val Gly Ser Ala
 245 250 255

Tyr Glu Glu Ala Val Gly Phe Met Pro Ser Thr Thr Ala Tyr Pro Lys
 260 265 270

Pro Pro Thr Pro Pro Thr Asn Pro Thr Thr Pro Leu Glu Lys Ser Gln
 275 280 285

Ala Lys Asn Lys Tyr Val Ser Asn Val Tyr Leu Gly Gly Gln Ala Gly
 290 295 300

Asn Pro Val Ala Thr Thr Val Ser Phe Asn Lys Glu Thr Gly Cys Thr
 305 310 315 320

Tyr Ser Ile Thr Phe Asp Phe Ala Trp Asn Lys Thr Tyr Lys Met Ala
 325 330 335

Phe Ile Pro Arg Phe Asn Phe
 340

<210> 57
 <211> 394

<212> PRT
 <213> adenoviridae

 <220>
 <221> VARIANT
 <222> (1)..(394)
 <223> Serotype 49 fiber protein

 <220>
 <221> MISC_FEATURE
 <222> (262)..(262)
 <223> 'Xaa' at position 262 indicates an unidentified amino acid due to
 unidentified nucleotide(s)

 <400> 57

 Ser Cys Ser Cys Pro Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met
 1 5 10 15

 Lys Arg Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro Tyr
 20 25 30

 Gly Tyr Ala Arg Asn Gln Asn Ile Pro Phe Leu Thr Pro Pro Phe Val
 35 40 45

 Ser Ser Asp Gly Phe Gln Asn Phe Pro Pro Gly Val Leu Ser Leu Lys
 50 55 60

 Leu Ala Asp Pro Ile Ala Ile Thr Asn Gly Asn Val Ser Leu Lys Val
 65 70 75 80

 Gly Gly Gly Leu Thr Val Glu Gln Asp Ser Gly Asn Leu Lys Val Asn
 85 90 95

 Pro Lys Ala Pro Leu Gln Val Ala Thr Asp Asn Gln Leu Glu Ile Ser
 100 105 110

 Leu Ala Asp Pro Phe Glu Val Lys Asn Lys Lys Leu Ser Leu Lys Val
 115 120 125

 Gly His Gly Leu Lys Val Ile Asp Glu Asn Ile Ser Thr Leu Gln Gly
 130 135 140

 Leu Leu Gly Asn Leu Val Val Leu Thr Gly Met Gly Ile Gly Thr Glu

145		150		155		160									
Glu	Leu	Lys	Lys	Asp	Asp	Lys	Ile	Val	Gly	Ser	Ala	Val	Asn	Val	Arg
				165					170					175	
Leu	Gly	Gln	Asp	Gly	Gly	Leu	Thr	Phe	Asp	Lys	Lys	Gly	Asp	Leu	Val
			180					185					190		
Ala	Trp	Asn	Lys	Glu	Asn	Asp	Arg	Arg	Thr	Leu	Trp	Thr	Thr	Pro	Asp
		195					200					205			
Pro	Ser	Pro	Asn	Cys	Lys	Val	Ser	Glu	Glu	Lys	Asp	Ser	Lys	Leu	Thr
	210					215					220				
Leu	Val	Leu	Thr	Lys	Cys	Gly	Ser	Gln	Ile	Leu	Ala	Ser	Val	Ser	Leu
225					230					235					240
Leu	Val	Val	Lys	Gly	Lys	Phe	Ala	Asn	Ile	Asn	Asn	Lys	Thr	Asn	Pro
			245						250					255	
Gly	Glu	Asp	Tyr	Lys	Xaa	Phe	Ser	Val	Lys	Leu	Leu	Phe	Asp	Ala	Asn
		260						265					270		
Gly	Lys	Leu	Leu	Thr	Gly	Ser	Ser	Leu	Asp	Gly	Asn	Tyr	Trp	Asn	Tyr
		275					280					285			
Lys	Asn	Lys	Asp	Ser	Val	Ile	Gly	Ser	Pro	Tyr	Glu	Asn	Ala	Val	Pro
	290					295					300				
Phe	Met	Pro	Asn	Ser	Thr	Ala	Tyr	Pro	Lys	Ile	Ile	Asn	Asn	Gly	Thr
305					310					315					320
Ala	Asn	Pro	Glu	Asp	Lys	Lys	Ser	Ala	Ala	Lys	Lys	Thr	Ile	Val	Thr
			325						330					335	
Asn	Val	Tyr	Leu	Gly	Gly	Asp	Ala	Ala	Lys	Pro	Val	Ala	Thr	Thr	Ile
			340					345					350		
Ser	Phe	Asn	Lys	Glu	Thr	Glu	Ser	Asn	Cys	Val	Tyr	Ser	Ile	Thr	Phe
		355					360					365			

Asp Phe Ala Trp Asn Lys Thr Tyr Lys Asn Val Pro Phe Asp Ser Ser
 370 375 380

Ser Leu Thr Phe Ser Tyr Ile Ala Gln Glu
 385 390

<210> 58
 <211> 353
 <212> PRT
 <213> adenoviridae

<220>
 <221> VARIANT
 <222> (1)..(353)
 <223> Serotype 51 fiber protein

<400> 58

Ser Cys Ser Cys Pro Ser Ala Pro Thr Ile Phe Met Leu Leu Gln Met
 1 5 10 15

Lys Arg Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro Tyr
 20 25 30

Glu Asp Glu Ser Thr Ser Gln His Pro Phe Ile Asn Pro Gly Phe Ile
 35 40 45

Ser Pro Asn Gly Phe Thr Gln Ser Pro Asp Gly Val Leu Thr Leu Asn
 50 55 60

Cys Leu Thr Pro Leu Thr Thr Gly Gly Pro Leu Gln Leu Lys Val
 65 70 75 80

Gly Gly Gly Leu Ile Val Asp Asp Thr Asp Gly Thr Leu Gln Glu Asn
 85 90 95

Ile Arg Val Thr Ala Pro Ile Thr Lys Asn Asn His Ser Val Glu Leu
 100 105 110

Ser Ile Gly Asn Gly Leu Glu Thr Gln Asn Asn Lys Leu Cys Ala Lys
 115 120 125

Leu Gly Asn Gly Leu Lys Phe Asn Asn Gly Asp Ile Cys Ile Lys Asp
 130 135 140

Ser Ile Asn Thr Leu Trp Thr Gly Ile Lys Pro Pro Pro Asn Cys Gln
145 150 155 160

Ile Val Glu Asn Thr Asp Thr Asn Asp Gly Lys Leu Thr Leu Val Leu
165 170 175

Val Lys Asn Gly Gly Leu Val Asn Gly Tyr Val Ser Leu Val Gly Val
180 185 190

Ser Asp Thr Val Asn Gln Met Phe Thr Gln Lys Ser Ala Thr Ile Gln
195 200 205

Leu Arg Leu Tyr Phe Asp Ser Ser Gly Asn Leu Leu Thr Asp Glu Ser
210 215 220

Asn Leu Lys Ile Pro Leu Lys Asn Lys Ser Ser Thr Ala Thr Ser Glu
225 230 235 240

Ala Ala Thr Ser Ser Lys Ala Phe Met Pro Ser Thr Thr Ala Tyr Pro
245 250 255

Phe Asn Thr Thr Thr Arg Asp Ser Glu Asn Tyr Ile His Gly Ile Cys
260 265 270

Tyr Tyr Met Thr Ser Tyr Asp Arg Ser Leu Val Pro Leu Asn Ile Ser
275 280 285

Ile Met Leu Asn Ser Arg Thr Ile Ser Ser Asn Val Ala Tyr Ala Ile
290 295 300

Gln Phe Glu Trp Asn Leu Asn Ala Lys Glu Ser Pro Glu Ser Asn Ile
305 310 315 320

Ala Thr Leu Thr Thr Ser Pro Phe Phe Phe Ser Tyr Ile Ile Glu Asp
325 330 335

Thr Thr Lys Cys Ile Ser Leu Cys Tyr Val Ser Thr Cys Leu Phe Phe
340 345 350

Asn